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and Petroleum Industry

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*For distinguished services rendered in behalf of the War Savings Program, this citation is awarded to*

**California Oil World & Petroleum Industry**

*Given under my hand and seal on* June 12, 1943

Henry Morgenthau Jr.
SECRETARY OF THE TREASURY

*In the service of our country*

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August 13th, 1943

Telephone Number TUcker 2571

GOOD NEWS FOR THE OIL INDUSTRY!

# Axelson *is building more pumps*

## EACH MONTH WE'RE GETTING MORE MATERIAL WHICH ENABLES US TO STEP-UP AND SPEED-UP THE AMOUNT OF DELIVERIES

Not so long ago, we celebrated when a little batch of raw materials trickled into our plant and enabled us to build a few more pumps, or to replace parts on old ones. It was discouraging, but there was little or nothing to be done about it. The War Materials Board told us what we could have—and that was that!

Lately, however, the picture has changed as a result of requirements from the War and Navy Departments. They must have oil to run our rapidly expanding fleet; they must have high test gasoline to keep our incomparable bombers and pursuit ships in the air. War plants, munitions factories, engine builders are all demanding more oil, lest their machinery be shut down.

The red light has turned green; the regulations have been eased up a little more each month. So, Axelson is again in a position to step-up production. We are now making more pumps—not enough to meet the entire demand, as yet—but more than we made six months ago. We think this condition will steadily improve.

Meanwhile, our designers and engineers have performed miracles in creating new methods, using alternate materials—but never budging one iota from the traditional Axelson quality. We still believe we have the world's best pumps—and fifty years of experience have proved we're right!

## Are you using any Axelson R.S.L. Pumps now?

Every pump manufacturer makes a Tube Type pump—but we believe Axelson R. S. L. type is the best insert pump made for all-over universal pumping requirements where the use of a rod type pump is indicated. These pumps are available in either traveling or stationary barrel types.

The patented Axelson top lock-hold-down, developed to provide positive anchorage and to prevent sandpacking in stationary barrel pumps, may also be used with the traveling type through the substitution of one part. In other words, by substituting a valve type manderel for the standard manderel in the hold-down, a traveling type pump can either be hung from the end of the tubing or can be set in the shoe above the end of the tubing. This is a typical feature, indicative of Axelson pump superiority. If you are not familiar with the various types and application of the Axelson R. S. L. pump, write for full particulars today.

FOR VICTORY—BUY U. S. WAR BONDS

# Axelson

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# Administrative Highlights •

## Sup. 6-P. A. O. 11 Secondary Recovery— Briefed by Oil Producers Agency

It is now considered that even in California secondary recovery will play a vital part in future production.

P. A. W. on July 2, 1943, issued Supplementary Order No. 6 to P. A. O. No. 11 which permits producers to acquire and use materials in secondary recovery operations without regard to the restrictions otherwise imposed by P.A.O. No. 11. In issuing the order Mr. Davies said:

"Secondary recovery means getting more of the oil which we know is in the ground.

"It is especially important, in view of the disappointing new discovery records of recent years, that we exert our efforts and ingenuity to increase secondary recovery production at this time. The Petoleum Administration hopes that operators will take early advantage of the authorization included in this supplementary order to inaugurate an unprecedented number of secondary recovery projects.

"Secondary recovery operations are, of course, considerably more costly than primary production operations and it is realized that the existing crude oil price level is not favorable toward the initiation or conduct of these operations. This is one of the important reasons which have led the Petroleum Administrator to recommend a general upward adjustment in the crude oil price ceiling.

"Under the terms of the Order, secondary recovery operations involve the injection of air, gas, or water into the producing formation for the purpose of increasing or sustaining production therefrom, and include the drilling of production and injection wells. Pressure maintenance, high pressure cycling, and salt water disposal are specifically excluded from the definition of secondary recovery.

"The authorizations under the amended order extend only to an operator who conducts the specific injection program, or who contributes money, property, or service as a participant in a specific secondary recovery program. The authorization for drilling of production wells extends only to such operations conducted within a radius of two thousand feet of any air or gas injection well or within a radius of one thousand feet of any water injection well."

We have asked the local office of the P. A. W. for amplification of the application of secondary recovery to California, and the production Division of District No. 5 has this to say:

"The remaining primary reserves of oil in California are estimated at 3 to 4 billion barrels. In order to meet the military and essential civilian needs in the Pacific area during the next four years, California will have to produce from one and one-quarter to one and one-half billion barrels, equivalent to one-third of these remaining primary reserves. Exploration alone will not meet this tremendous drain upon the oil resources of the State.

"The exhaustion of primary reserves leaves an estimated two-thirds of the oil in the sand, in California oil fields. In other words, the total primary recovery of about 10 billion barrels (6 billion barrels produced to date plus 4 billion barrels remaining primary reserves) represents only about one-third of the total oil in place in these developed fields. The residual oil amounting to an estimated 20 billion barrels is a potential source of additional reserves to be produced by secondary recovery methods. What proportion of this residual oil can be produced during the next 4 years to help meet the war demand for California oil?

"This question must be faced and answered by the California oil industry, and the industry will be aided in every possible manner by the Petroleum Administration for War, as is evidenced by Supplementary Order No. 6 which permits operators to buy and use materials in secondary recovery operations without regard to the restrictions otherwise imposed by P.A.O. No. 11 and Supplementary Order No. 4.

"Secondary recovery is new and untried in California but both water flooding and air or gas drive have been successfully applied for several years in Eastern and Mid-continem fields. These methods were fully described in the API Bulletin "Secondary Recovery of Oil in the United States" published in 1942. This has been supplemented by a "Symposium on Secondary Recovery," presented at the 28th Annual Meeting of the American Association of Petroleum Geologists at Ft. Worth, Texas, April 9, 1943. Also "A bibliography on Secondary Recovery of Petroleum" has been compiled recently by Bradford A. Osborne, Head of the Technical Department, Tulsa Public Library, Tulsa, Oklasoma."

Very respectfully,

R. M. BLODGET.

**The Order Follows:**

**TITLE 32—National Defense**
**CHAPTER XIII—Petroleum Administration For War**
**PART 1515—Petroleum Production Operations**
**Supplementary Order No. 6**
**To Petroleum Administrative Order No. 11**
**as Amended June 30, 1943.**
**General exception Pursuant to Paragraph (c) (10) of Petroleum Administrative Order No. 11**

Section 1515.12 Supplementary Order No. 6 to Petroleum Administrative Order No. 11:

(a) **Scope of this Order.**
Except as otherwise modified by the provisions of any other Order issued as a supplement to Petroleum Administrative Order No. 11 or by the provisions of any exception issued pursuant to paragraph (c) (10) of Petroleum Administrative Order No. 11, the provisions of this Order shall, to the extent provided herein, be applicable to secondary recovery crude oil production operations in the United States, its territory or possessions, but not elsewhere, and to the delivery, acquisition, or use of Material for such operations.

(b) **Definitions.**
The definitions of Petroleum Administrative Order No. 11 shall apply in this Order.

(c) **Acquisition and Use of Material for Secondary Recovery.**
Pursuant to paragraph (c) (10) of Petroleum Administrative Order No. 11, any person may accept delivery of, acquire, or use Material for secondary recovery crude oil production operations (including the drilling of production and injection wells but excluding pressure maintenance operations, salt water disposal operations, or high-pressure cycling operations) by the injection of air, gas, or water into the producing formation for the purpose of increasing or sustaining production therefrom, provided that this authorization shall extend only to the operator who actually conducts the specific injection program or to those operators who contribute money, property or services as participants in the specific secondary recovery program, and provided further that, as to the drilling of production wells, this authorization shall extend only to such operations conducted within a radius of 2000 feet of any air or gas injection well or within a radius of 1000 feet of any water injection well.

(d) **Violations.**
Any person who wilfully violates any provision of this Order, or who, by any act or omission, falsifies records kept or information furnished in connection with this Order is guilty of a crime and upon conviction may be punished by fine or imprisonment.

Any person who wilfully violates any provision of this Order may be prohibited from delivering or receiving any Material under priority control, or such other action may be taken as is deemed appropriate.

(E.O. 9276, 7 F.R. 10091; E. O. 9125, 7 F.R. 2719; sec. 2(a), Pub. Law 671, 76th Cong., as amended by Pub. Laws 89 and 507, 77th Cong.)

Issued this 30th day of June, 1943.

(Signed)
RALPH K. DAVIES,
Deputy Petroleum
Administrator for War.

## New Division, Petroleum Administration For War

It is reported that P.A.W. has established a new division to head the construction program for 100 Octane Plants with Max B. Miller, Chief of Construction Section, P.A.W. Refining Division, as head of the new division. Apparently District Directors will be announced for Districts 1, 2, 3, and 5, in which Districts such construction is under way or contemplated.

## Russell R. Palmer Leaves Petroleum World

After 23 years as editor of Petroleum World, Russell R. Palmer announces that he has terminated his connections with the publication.

Many oil men will join the staff of California Oil World in wishing Russ every success in whatever new activity he engages in.

## Junior Members of the Southern California Section, A. I. M. E.

On July 8, 1943, in the first summer meeting of its history, some fifty members of the Southern California Junior A.I.M.E. assembled in Huntington Park for dinner and discussion. Subject of the evening, "Production Predictions from Core Analysis Data," was presented by Norris Johnston, physicist, General Petroleum Corporation of California.

After a brief summary of the primary factors with which core analysis was concerned, Dr. Johnston stated that the science had as its goal the attainment of two main objectives: (1) the estimating of reserves in place, and (2) the estimating of probable well potentials. Under the former subject he outlined the establishment and function of the oil-water ratio curve, while under the latter topic he described the formula and curves (and refinements thereof) now being applied with substantial success to the estimating of productive capacities.

In accordance with its preliminary announcement, the meeting was a "practical discussion dealing with the application of laboratory data to problems encountered in the field." The fact that the meeting ranked with the most successful of recent years was established by the size, interest, and enthusiasm of the audience. Discussion was enhanced by the presence in the audience of several qualified technicians who frequently elaborated upon issues developed by the speaker.

In conclusion, Chairman Turner announced that an outing and beer party would replace the scheduled August meeting. This will be held on Saturday, August 14th, at the Hacienda Country Club, La Habra Heights, California. R. L. Parsons, committeeman in charge of the outing, cordially invited the attendance of all interested members and guests.

# Some Means of Reducing the Demand for Critical Materials for Use in Gasoline Plants

By T. G. A. Cook
The Texas Co.
Presented before July, 1943, Meeting
C. N. G. A.
Rio Hondo Golf Club
Downey, Calif.

This paper is being read before you, not so much with the idea of giving you new information on substitute materials, but with the thought of letting you know what some of the other fellows are doing, and with the hope that the mere mention of certain materials, and their present uses in our industry, will stimulate a discussion from the floor by which we all can gain some profitable knowledge at the expense of the other fellow's practical experience.

Of the uses of substitute materials mentioned in this paper, only a few have come within the writer's personal experience. I am indebted to many of you here for data regarding the substitute materials you are using in your own plants, and quite a bit of information has been gleaned from the various periodicals and trade publications. It must be quite obvious that I am merely preparing a suitable alibi, should I be confronted with some embarrassing questions later on; however, I shall endeavor to steer any such questions in the direction of someone who may have had experience along that particular line.

An over-all picture of our industry does not indicate that, up to the present, we have suffered very much for the lack of materials. This is probably due to good foresight on the part of our purchasing and warehouse departments in anticipating shortages and placing orders ahead of time, and to the supply houses who have kept us informed of supply and demand, and have exerted noble efforts to keep us all satisfied. It is obvious, however, that, even with the high priority ratings our industry can command, things are going to get quite a bit tougher before they get better.

**Pipe Salvage**

Many of us, no doubt, have experienced difficulties in obtaining regular steel line pipe of all sizes. We have probably combed our plants for surplus pipe lines, and dismantled obsolete equipment for salvage of valves, fittings, etc. A source of considerable supply, which has been tapped by many companies, is the casing and tubing in old abandoned oil wells. In most cases the tubing has, of course, been salvaged at time of abandonment, but frequently several strings of casing have been left in the ground, either because salvage operations were considered too costly in the good old days, or it has been left there to await a more convenient time for removal. In quite a number of instances, wells now producing on the pump still have one or more strings of casing in the hole, which is recoverable without injury to the well. The casing sizes often may not conform to those of the pipe we are accustomed to use in the plant, and tubing is frequently of the upset variety, but since sizes are large and welding is standard practice on such sizes, it is often possible to make use of such material for various plant jobs. Transite pipe and concrete pipe have limited uses in our plants, but there are a few spots, such as drain lines and water lines, where they can be used in place of the customary steel pipe. Priority ratings are required for purchase of these materials, but the powers who dish out the ratings are more apt to be generous with asbestos and cement than they are with steel.

**Plastic Tubing**

In the smaller sizes, plastic tubings have been used extensively for replacement of copper, steel and iron piping for many uses in our plants and laboratories. Many orifice meters, recording instruments and controls, are being installed using the plastic in place of the conventional copper or steel. Its uses in the laboratory are manifold, and on gas and gasoline engines it is being widely used for oil, water and fuel lines. There are several brands of this tubing which are readily available without priority requirement, among them being TYGON, TENITE, TULOX, VINYL and SARAN, of which SARAN seems to be the most popular and diversified in its uses—the other brands being more or less manufactured for some specific service. SARAN tubing can be obtained in sizes from ⅛ inch up to ¾ inch and in various wall thicknesses. Tees, unions, adapters and other fittings, called APLA fittings, made of the same material, are also available. I have been told that it is good practice to stay away from rigid connections when using plastic tubing, and, by means of a loop or pigtail, to allow for expansion and contraction due to temperature changes. The loops, however, should be large in diameter for, under certain conditions, the tubing will collapse and close off. Under other conditions such as excessive vibration it will crack. It also seems that there is a tendency for the tubing to pull out of the fittings due, no doubt, to its lack of elasticity. It truly can be classed as a substitute, and will not, I am sure, be one of those things we shall keep after the war.

Few, if any other materials, have proved as useful for substitutes as the plastics. To mention only a few of their present day uses, there are window screens, flash light cases

and wet battery shells, tubing and small fittings, hose nozzles and couplings, and safety hats. In the past we have been accustomed to think of most of these articles as being of metal construction. Incidentally, I am assured that plastic window screening, when unravelled, makes a very fine substitute for gut leaders—this may be useful information for those of you who are fishing addicts. The other day, in opening up a new package of mercurochrome swabs from a first-aid kit, I noticed that the ampules are now made of plastic. A small glass plug is inserted at one end which can be crushed to permit the mercurochrome to escape. Another use to which plastic material has been put, is the manufacture of orifice meter and recording instrument charts, where such charts are not maintained for permanent record but merely for operating or control information. Reminiscent of the old celluloid collar days, all you have to do is spit on a rag and wipe the plastic chart clean, instead of replacing a paper chart each day. With the shortage of paper, a real actuality already, we may be glad to revert to those old self-laundry days again.

**Transite Pipe**

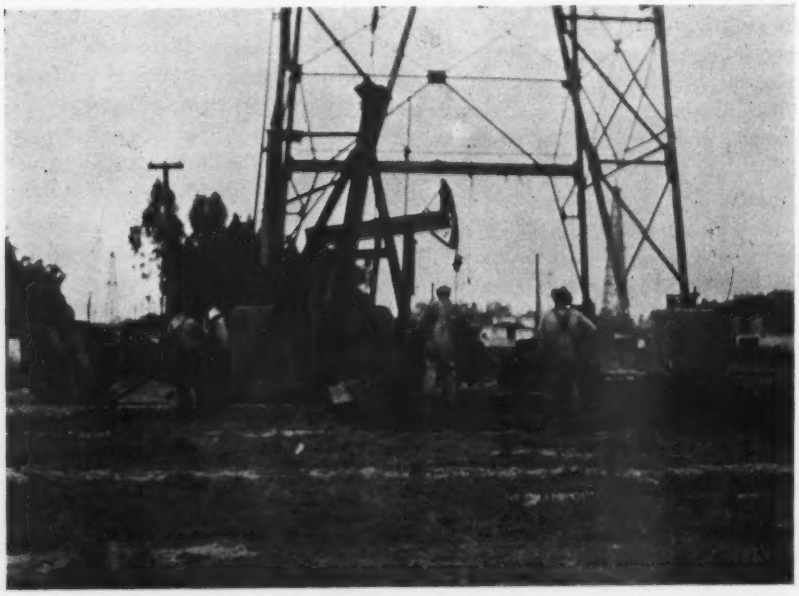
Transite pipe was mentioned a few moments ago, and there are other transite products available; namely, corrugated or flat siding and roofing, to take the place of sheet iron for buildings, work benches, etc. If the initial cost angle is of prime consideration, the use of transite material might prove prohibitive, but the Johns Manville boys assure me that this consideration is vastly outweighed by the safety from fire and low maintenance cost angles.

There is also a new board of laminated construction called A-D board, which can, in many cases, it is claimed, be used as an alternate for sheet metal in such places as shop partitions, air ducts, etc. The board is covered with asbestos felt, and this comes under the classification of "Fire Retardant." While we are speaking of roofing and siding, I will mention that there is an asphaltic material manufactured by Celotex Corporation, for these purposes, to take the place of hard-to-get corrugated iron. It is made of layers of impregnated felt stuck together with high melting point asphalt and corrugated under pressure. They are produced in sheets 28 inches wide by 6 to 10 feet in length. If it is planned to use this, or similar material for patch or repair work, it would probably be wise to check the distances between corrugations, for I came across a sample in which the corrugations were considerably wider apart than in the standard type of corrugated iron, and consequently would not match up with the iron if used as a patch.

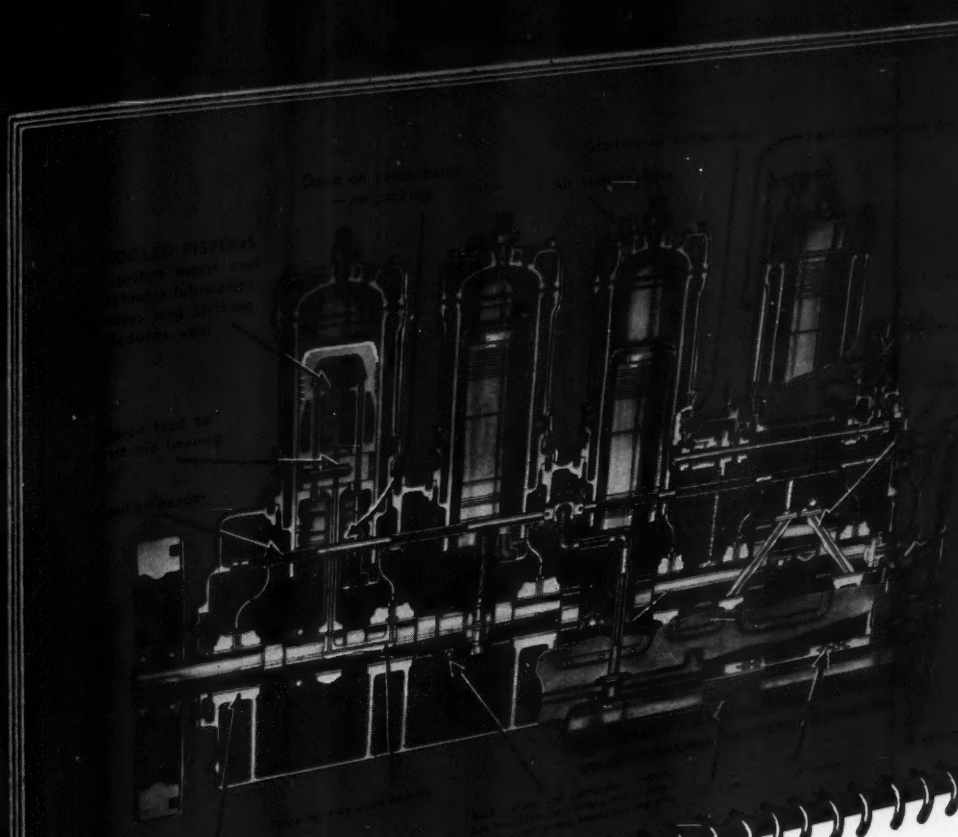
Metal containers, for many things, have been replaced by substitutes. Paint is coming to us in glass jars or wooden pails. Steam cylinder oils, and some other types of oils, have begun to arrive in the old type wooden barrels. Chemicals, which used to be in steel drums, now come in paper sacks or wooden drums. Some of the tools and housekeeping utensils we use around the plants have changed, too. Wooden mop buckets have replaced metal, the metal clamps which secure the mop head to the mop handle have been supplanted by wooden clamps. Woven glass fibre is being used in place of metal for pipe and cable hangers. Rubber garden hoses cannot easily be obtained any longer, and we are having to be satisfied with "Victory" hose together with the plastic couplings and nozzles mentioned before.

**Wet Batteries**

Mention has been made of wet batteries for flash lights. These cells are of the same size as two dry cells placed end to end and fit into the conventional two cell flashlight, or with a suitable filler, into a three cell light. Their original life is longer than the dry cells and they can, of course, be recharged. Special bulbs are required, however, in flashlights using the wet batteries. Some companies have had considerable success in regenerating, or more properly, re-vitalizing dry cells. New cells should register about 2 volts on a voltmeter; below 1½ volts they fail to give sufficient light and are usually discarded. Those cells testing less than 1½ volts can be restored to useful life by connecting six cells in series with a 6 volt 3 C. P. lamp and passing a 12 volt D. C. current through them for eight or ten hours. This gives a charging rate of about ½ amp., the 3 C. P.



Moving in a big pumping unit in the Five Points Area. The wells are brought in on the portable for immediate yield, then changed over.

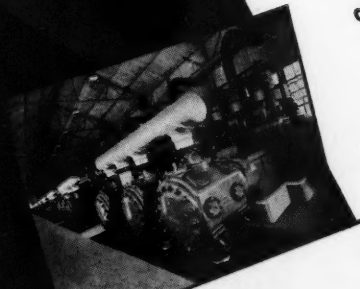


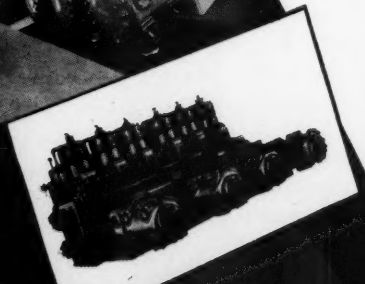
# 2-CYCLE uses LESS OIL!

Plant records prove that the 2-cycle engine uses far less lubricating oil than the 4-cycle. Not only does it eliminate the extra "charging" stroke of the piston (which must be lubricated)—but in the 2-cycle engine, leakage past piston rings goes out the exhaust port, instead of entering the crankcase to dilute and foul the lubricating oil.

Many Clark "Angles" operate without changing the crankcase oil for over a year due to freedom of the oil from any tendency to "varnish". Check with Clark users . . . . . they will advise that bearing troubles practically cease.

The CLARK 2-cycle also offers greater fuel economy, less wear smoother operation, fewer man hours, simpler construction, lower installation cost. Investigate.





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bulb acting as a governor and preventing the cells from getting too hot. If the cells test 1½ volts or over, a shot of 6 volt D. C. current, for about 30 seconds, is sufficient to depolarize the cell and cleanse the corroding materials from the inside surface. Good grade dry cells can be revitalized several times, thus increasing their life several hundred per cent. Companies who are doing this work, in most cases, have established a system to collect their worn out batteries from plants, pumpers, gaugers, etc., turning them in to a central spot for recharging. The equipment required can be installed at very nominal cost, and the whole idea seems worthy of our consideration for flashlight batteries are really one of the hard-to-get necessities around a plant, and any scheme which would tend to lengthen the life of our stocks is worth trying.

Many uses were found for asphaltic pavements in the past, such as pathways and mats around exposed equipment and engines to keep down dust and dirt, but now "hot stuff" and "cold stuff" are hard to get. Some of us have found that we can stir up a pretty fair substitute of our own by mixing road oil and number 4 gravel. This mix, of course, has the same drawbacks as any petroleum based material; namely, you have a heck of a mess on your hands—or rather feet—if gasoline or oil gets spilled on it.

**Non-Ferrous Materials**

Non-ferrous materials, such as brass bolts, nuts, clamps, etc., and copper nails for repairs to cooling towers, carry high priority ratings as a rule, and although equipment houses are willing to do all they can for us, sometimes our demands may strain even their ability to provide. Galvanized material is a fair substitute for brass in this type of work, and although perhaps it is hard to buy, as such, we can still buy iron bolts, nuts and nails, and have them galvanized for us at various galvanizing shops. This, of course, pre-supposes that the shop you have selected for the work is not tied up on higher priority work, for, to our sorrow, we are daily made to realize that labor, as well as material, is subject to priority ratings.

Many of us, I expect, at the start of the war, had engines equipped with foreign made magnetos, and were dependent for repair parts on various jobbers, who, in turn, had to import the parts from abroad. Stocks of foreign made magneto parts are now exhausted, or almost so, and in many cases we have had to buy new domestic manufactured mags to replace the foreign made, even though perhaps all that ailed the latter was some wornout and comparatively inexpensive but irreplacable part. Some have made radical changes, such as replacing single poled oscillating mags on two or four-cylindered engines with a single 2 or 4 poled mag of the rotary type. Others of us have found some American made mags which are plenty good, and at half the price, or better, of the original foreign made job.

**Wood Fences**

Chain link or wire fences for enclosing plant areas are unobtainable now; all such material apparently being taken over by the government for their own use. If, however, we have to build a fence, we can do so entirely of wood, or of wooden posts with barbed wire. The former can be obtained ready cut, and from pictures in the literature, it would seem to offer a formidable obstacle to any intruder. The Army has outlined the type of construction. They recommend using barbed wire for protective fences. Specification as to height, distance between strands, etc., have all been listed. A barbed wire fence can, of course, be easily electrified, which offers added measures of protection if desired.

**Sisal Rope**

Manila rope is one of the things which is "out" for the duration—and perhaps longer—unless you have a very special reason for buying the genuine article. Sisal rope seems to be the accepted substitute, and, in most cases, it has proved quite adequate. Its breaking point is about 20% lower than manila; it wears out quicker and is not so nice to handle, but offsetting these bad points is its price—20% cheaper than manila.

**Manpower**

I have purposely refrained from saying anything, up to now, about what is perhaps the biggest substitution in our national history—namely, womanpower for manpower. There may be places in the Basin here, where women are working as plant operators and on plant labor crews; if so, I don't know of them personally. They are being used quite extensively in laboratories and on chart reading jobs, and, of course, have taken the place of many men for clean-up and janitor work, and in office and accounting work. The refineries are leading the way in using women on operating jobs, it seems. Several companies, I understand, are employing women as stillsmen, and are having good success. There are, however, certain limitations put on the type of work they are allowed to perform; they are restricted as to the weight they are permitted to lift, the height above ground level they may work, etc. This is a subject which, I am sure, can lead to much discussion, and since I have had no experience along this line, I hope to learn a few things from the side-lines.

**Conclusions**

I am sure there are many articles of substitute material being used in our industry which I have neglected to mention. In some instances we are using something which in the beginning was considered a substitute, but which has proved so satisfactory that it is doubtful if we shall ever go back to using the original again. Many things, of course, in which quality has had to be sacrificed in order to furnish a stopgap, we shall be glad to throw out the window when we can again obtain standard materials.

I would like to mention that I have here a collection of data in

(*Continued on page 27*)

# He recommends a STEAM BATH for chain belts

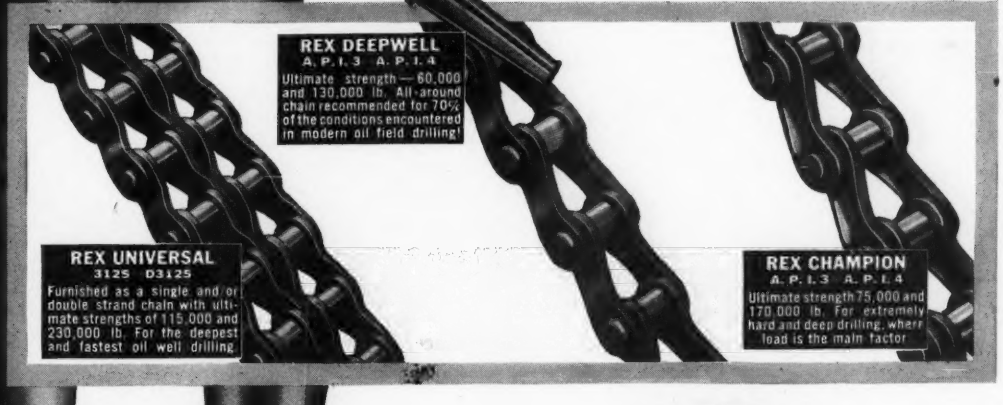
*REX Mechanical Engineering—Rex M. E.—through his many years of experience in the oil fields knows there are a few fundamentals about the care of oil well chains. One of these is*—keep them clean.

Rex M. E. says *all* chains should be cleaned frequently—those with oil-tight guards need the least attention, but those with loose guards need attention most often of all.

Where chain belt drives are exposed, he recommends high pressure cleaning with steam . . . *but he cautions you, following the use of steam, to give each chain a thorough oiling.* Soaking them in a barrel of light oil and flushing is a good practice after a chain is steam cleaned—with this care users will get maximum life and efficiency with minimum cost per foot of hole.

To get the chain off the sprockets for this kind of maintenance Rex Mechanical Engineering—Rex M. E.—has built *his* chains so that all you have to do to take them apart is shear the cotter and drive the three-diameter pin the width of a single side bar.

Your Rex supply store stocks and sells the three long-lived Rex Oil Well Chains. For additional information check your supply store or write Chain Belt Company, 1627 West Bruce Street, Milwaukee, Wisconsin.


REX DEEPWELL
A. P. I. 3 A. P. I. 4
Ultimate strength — 60,000 and 130,000 lb. All-around chain recommended for 70% of the conditions encountered in modern oil field drilling!
REX UNIVERSAL
3125 D3125
Furnished as a single and or double strand chain with ultimate strengths of 115,000 and 230,000 lb. For the deepest and fastest oil well drilling.
REX CHAMPION
A. P. I. 3 A. P. I. 4
Ultimate strength 75,000 and 170,000 lb. For extremely hard and deep drilling, where load is the main factor.

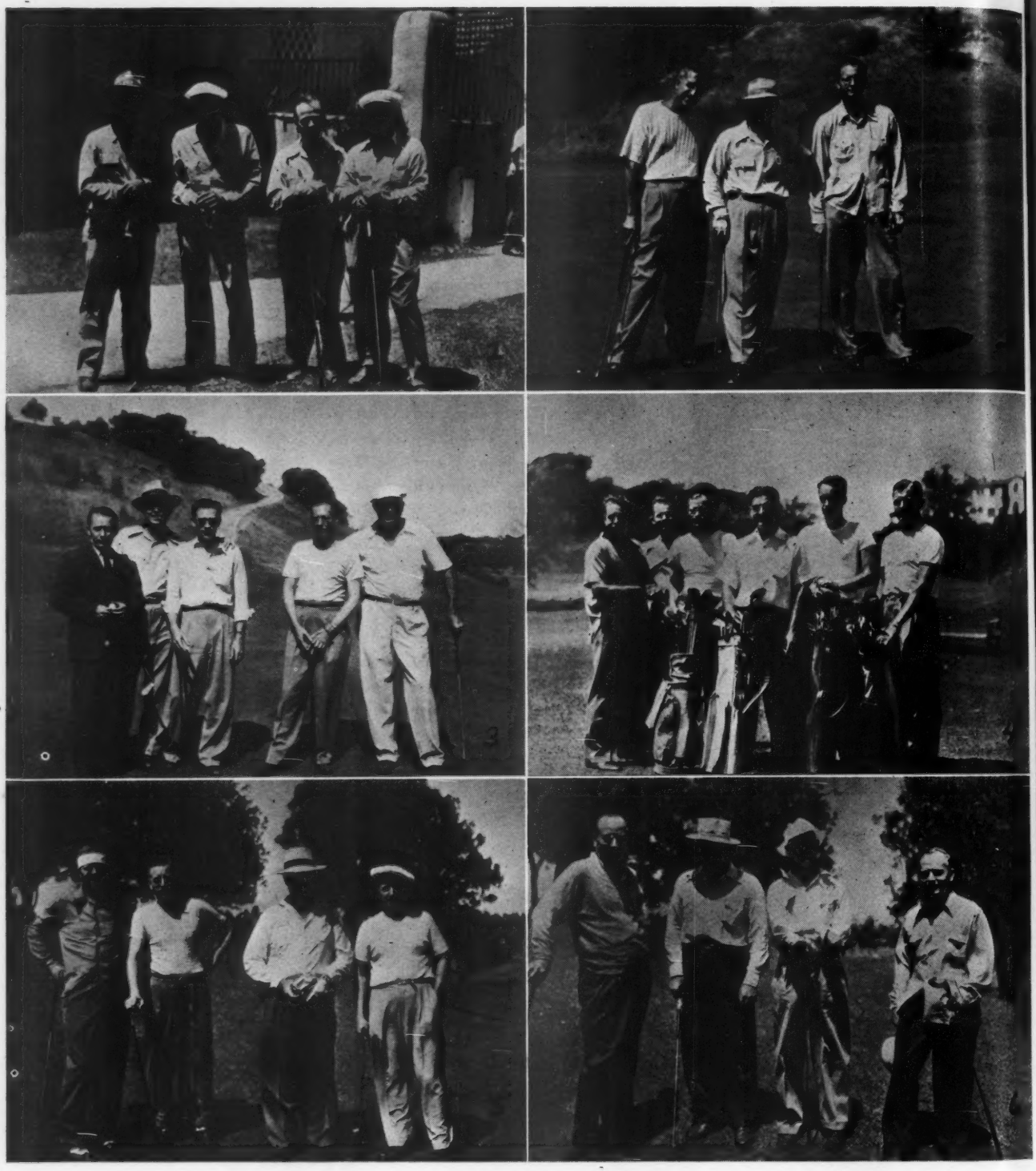
REX

## OIL WELL CHAINS

CHAMPION • DEEPWELL • UNIVERSAL

***2000 other Types and Sizes of Chain Belts . . . also Rex Self-Priming Pumps for general utility purposes***

**CHAIN BELT COMPANY OF MILWAUKEE**



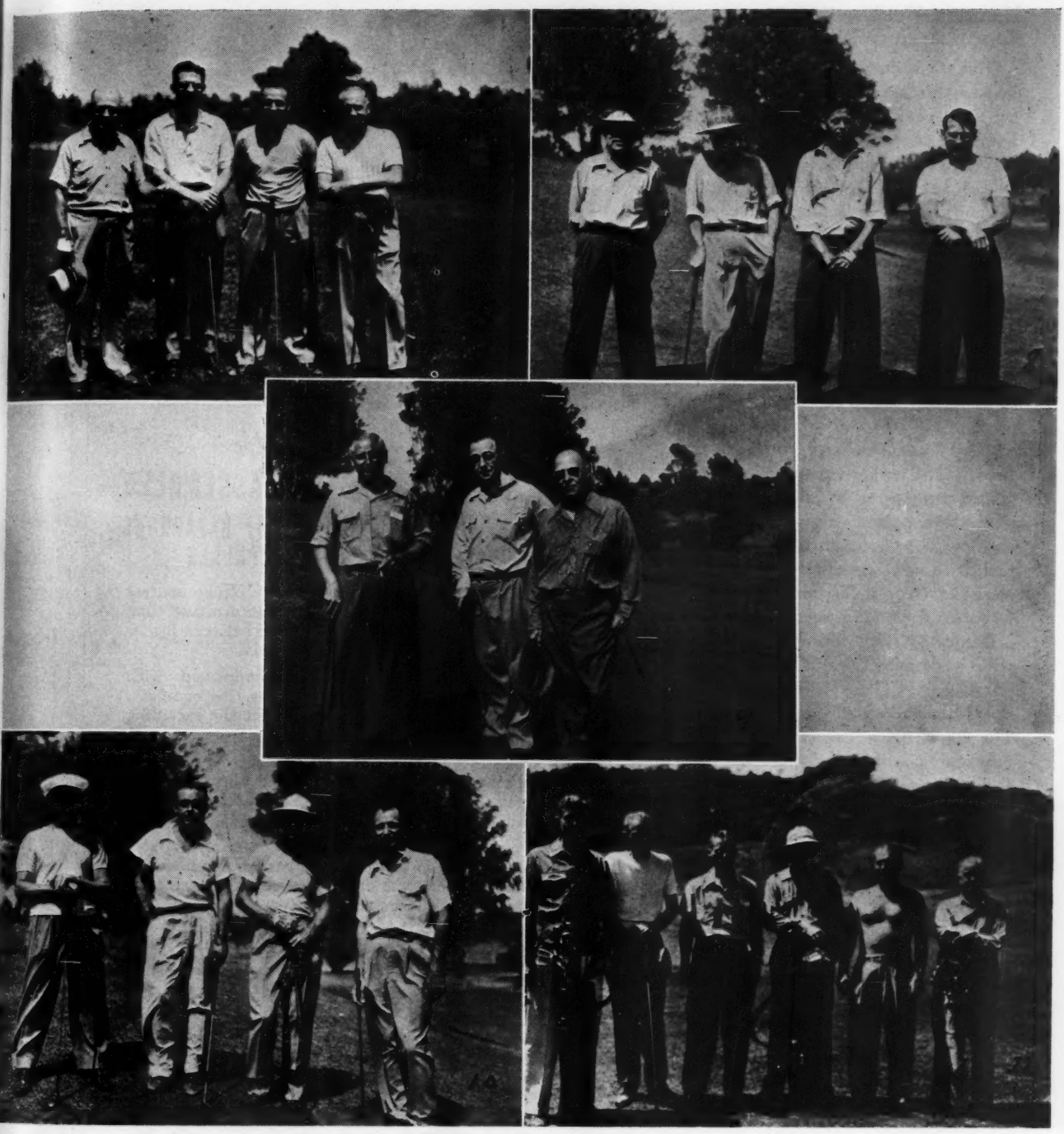
## Nomads Wing Ding

No. 1. Frank Smith, Geo. Anderson, Jimmy Creed and Jay Wharton, Belridge Oil Co.

No. 2. George Trembley; Les Hales, Calowell Const. Co.; and Dave Bradbury, Howard Supply Co.

No. 3. H. C. Clark, Abegg & Reinhold Co.; Frank Schlimmer, The Texas Co.; Art Holmund, Merco Nordstrom Valve Co.; H. F. Schlittler, Abegg & Reinhold Co., and Pete Maxfield, Merco Nordstrom Valve Co.

No. 4. Tommy Atkinson, Norris Johnston, Art Titus, Claude Pierce, John Hills and John Templeton, all of Gen. Pet. Corp.



## Nomads Wing Ding

No. 5. Herb White, The Republic Supply Co.; Lee Laird, Chiksan Oil Tool Co.; Earl Atkins, Chiksan Oil Tool Co.; and A. E. Schiltz, The Republic Supply Co.

No. 6. Bob Eiche; Wally Rushing of E. H. Edwards Co.; Jim McElwain of The Caminol Co.; and Dell O'Hanlon of Gilmore Oil Co.

No. 7. Jack Ballagh, Lou Bronzan. Charles Perkins of Union Oil Co. and Joe Siegel of Kobe, Inc.

No. 8. Paul Cavins, Bud Landis of Web Wilson Co.; Waldo Moore, The Cavins Co. and Chuck Howell, Oil Operators, Inc., of Long Beach.

No. 9. Abe Haglund, L. E. Hogsett of Axelson Mfg. Co. and Joe Pooler, Pacific Perforating Co.

No. 10. Howard Robinson, Ted Holbrook, Les Bible, Ted Lempke.

No. 11. Bill Farrand, The Texas Co.; Ralph Clemmons, Pet. Equipment Co.; Kenny Vandervort, Amerada Pet. Corp.; Paul Huggins, Western Gulf Oil Co.; Chet Yocum, Western Gulf Oil Co.; and Percy Hays, Universal Consolidated Oil Co.

## Nomads Hold Fourth Annual Wing Ding

Over two hundred Nomads and Guests gathered at the Riviera Country Club near Los Angeles for the Fourth Annual Wing Ding of the Los Angeles Chapter of Nomads on Friday, July 23, 1943. The event opened at noon with a golf tournament and continued until nearly midnight with an elaborate floor show topping off the affair.

Sixty-six oil company and equipment men competed in the golf tournament. Prizes for net scores consisted of merchandise orders at Bullock's Wilshire and the first prize of $25.00 in merchandise was won by Dave Bradbury with a low net of 62. The second prize valued at $20 went to L. W. Ballard. The next three prizes valued at $10.00 each were won by three men who tied with net scores of 66. These were L. George Trembley, B. H. Dyson and Tommy Severns.

Games of skill were then played with stage money, each Nomad and guest being given a quantity of this stage money when he entered. The object was to accumulate as much as possible and then use it for bidding for prizes during the dinner hour. This auction, together with the awarding of the golf prizes and drawing for a door prize, was conducted by a moving picture actress obtained for the occasion. First prize, auctioned off last, was a traveling bag and was won by Earl (Pop) Atkins. Second prize was a gaming set won by Henry Grinnell; third was a lap robe won by Mat Reardon; and fourth, an old-fashioned muddler, won by Ray Morris. The door prize went to L. George Trembley who seemed to be running in luck.

Dinner being finished by the end of the auction, the master of ceremonies was introduced and the floor show started. The hit of the show was a blind-fold, mind-reading act. Everybody is still wondering how that bird did it. The show was designed to provide entertainment that would appeal to everybody and

(*Continued on page 29*)

Simplify layout problems
Cut installation time
Save critical materials

*with*

LOW-VOLTAGE, FACTORY-ASSEMBLED CONTROL *for* CORROSIVE or HAZARDOUS ATMOSPHERES

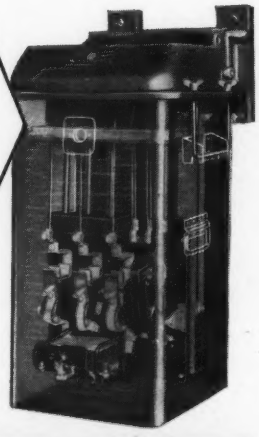
Now you can order a complete low-voltage control system simply—saving engineering and drafting time on layout. Here's everything you need between feeder and motors in a single control assembly.

**Piecemeal installations are eliminated** with group control. You have only to set this compact, space-saving unit in place and connect the incoming line and outgoing motor leads.

These "racked-up" low-voltage controls save the critical materials required for conduit, junction boxes, and special fittings needed for separately mounted devices.

**For complete details** on group controls, and specific suggestions as to where you can apply them, get in touch with our local office, or write General Electric Company, Schenectady, N. Y.

**CR7008—For indoor or outdoor use. Contains: (1) Manual circuit breaker for short-circuit protection and disconnecting. (2) Oil-immersed magnetic starter for dependable, longer-life control.**



GE CONTROL

GENERAL ELECTRIC

# Secondary Recovery Study Indicated by Oil Shortage

By Vernon L. King

The fact that oil fields are depletable has been sharply emphasized to the public by the present gasoline situation. Various explanations, political and otherwise, are rampant, so that John Q. Public has been left not only mystified, but without much gasoline. Many schemes are being proposed as an immediate remedy for the situation, and in some instances even make it appear that we might be blessed with an everlasting abundance. These ideas possess certain elements of truth but very often are lacking in some of the practical requirements. In order to be assured of future supplies it will become necessary to pursue a systematic plan or plans which will ultimately yield the required products, regardless of source or cost.

As a Nation, we are facing an increasing demand for crude oil while the known supply is diminishing. This situation can be met by one or more of the following plans:

1. Develop more fully the known oil fields.
2. Use secondary processes to recover oil from depleted sands.
3. Find new oil fields.
4. Import oil from other countries.
5. Employ substitutes.
6. Make synthetic products.
7. Develop shale oil.
8. Apply other forms of power.

To augment the supply of liquid fuels by any of the above plans will require time, equipment and expense. We may rely with confidence on the ingenuity of the American people to devise means to overcome our obstacles. The fact that the consumption of oil for the past several years has exceeded the discovery rate is well known to informed people and various remedies have received considerable thought both by governmental and private interests. Processes and techniques for the most part are not secret to qualified investigators. In some cases experiments have been conducted on a scale sufficiently large to determine what commercial results can be expected and reveal that the cost of shale oil and substitutes for motor fuel appears to be about double that of our present natural product. The time element and the material for developing the new industry on a large scale are serious considerations at a time when fuel needs are urgent. The most desirable solution would be the discovery of a large oil field and every energy should be used in this direction. Our present fields are being developed intensively by all agencies. However, the estimated returns fall short of requirements.

A large potential supply of crude oil remains in the sands after oil fields have been exhausted by the present usual means of production. It is estimated that only from ten to fifty per cent of the oil content is recovered. Here is a large known reserve which could be utilized if we could devise some practical method for extraction. The desirability of recovering at least a portion of this oil is further emphasized by the fact that we already have the pipeline and refinery equipment to immediately utilize the product. Oil moves from the sand into the well because of reduced pressure at the well,—the greater the pressure differential the greater the flow, other conditions being equal. The factors which retard the flow of oil besides lack of pressure differential are mainly resistance within the sand which is generally expressed by a term known as permeability, and also by the viscosity of the oil itself. Of the three factors, permeability remains fixed. Present methods of increasing recovery have employed water or gas drive to increase differential pressure. If the viscosity of the oil in place could be changed at least temporarily then it is apparent that greater recoveries could be expected.

California has produced about six billion barrels of crude oil and has an estimated future recovery by present methods of approximately three billion barrels, which will take considerable time to produce. In addition to this there remains-included in the sands of our known fields—some fifteen or twenty billion barrels of crude which the present equipment and methods cannot extract. During the past four years California has produced about a billion barrels and it is estimated that the four year period, 1943-1947, will require about a billion and a quarter barrels. Discoveries during the last four years have amounted to some seventy-five million barrels, which is the equivalent of four months production. California fields will produce a substantial percentage of immediate West Coast needs but at the expense of the rapidly diminishing crude reserve. If ten per cent of the oil trapped in depleted sands could be recovered the present shortages would be partially met, not only in California but throughout the United States. While our fields can be overproduced for a short period of time, it is up to us to devise some method for recovery of at least a portion of this entrapped oil, and it is highly desirable that the method employed shall yield results within the next year or two.

In California it is recognized that all fields are not suitable for the employment of secondary recovery methods—due to various depths the cost of each project may vary widely. The application of our present knowledge to the problem will require petroleum engineers to make

investigations along the following known lines:

1. Description of fields, thickness of sand, porosity, permeability, oil saturation, viscosity, temperature, pressure, etc.
2. The close study of the processes for primary recovery to determine any future refinements that might increase the ultimate yield.
3. Investigation of secondary recovery operations now being used mostly in the Eastern fields.
4. Investigation of possible methods of secondary recovery for application to California fields.

Before launching a secondary recovery project there are many practical considerations, both physical and economic. While much experimental research has already been done, certain local conditions will have to be planned for before it can be applied in most California fields. It is known that in many cases additional production can be procured during the primary production cycle by methods employed during the early life of a new field. The various pressure maintenance systems using gas or water are an example of this type of approach. To recover the remaining oil might require a radical change in method. The problems involved in this type of secondary recovery have not yet been fully solved.

The present conception of any secondary recovery project regards an oil field as an entire physical unit. Any change in reservoir conditions may affect all of the area and hence, all of the producers. So, as a first step, a unit plan should be organized. Before returns are available new installations must be made. Most of the fields contain many individual operators, some of which may not have reserve cash sufficient to meet the new expense. Therefore, arrangements must be made to finance the project out of oil to be recovered. Just what the actual cost will be may not be definitely known but it certainly will be an extra financial burden.

The immediate costs of secondary recovery installations is a large factor and may determine just how far a company may be willing to go. By using some of the same equipment and wells the additional cost is reduced—however, this is essentially a new industry and should be financed as such. Whether a company wishes to increase its production by exploratory work, deepening and redrilling, or by secondary recovery methods, is largely a matter of its physical assets, its needs, or its special knowledge. Thus it appears that one way to get more oil is to employ a special technique on known oil reserves. This will take some time and cost some money but with proper incentive to the industry, much can be done to increase our production from reservoirs already discovered.

---

## Internal Combustion Engines Available

Deputy Petroleum Administrator for War Ralph K. Davies called attention July 16 to the fact that distributors who supply petroleum industry operators will be assured delivery of internal combustion engines if orders are placed six months or more in advance of the date the engines are required for use.

The Deputy Administrator explained that heretofore the distributors were never certain that the engines ordered would be delivered on schedule, because military requirements are great and, of course, have priority. Under the WPB's Controlled Materials Plan, however, manufacturers now can fill orders on schedule.

Since increased production of petroleum products is expected next year, PAW anticipates that the requirements for new internal combustion engines also will increase.

Distributors are cautioned, however, against filing PD-1X applications for engines that already have been authorized and assigned an AA-1 rating by previous applications. If applications are filed for only a part of the petroleum industry's engine requirements, then supplemental forms may be filed for additional engines.

---

## Spang-Chalfant Appoints New Sales Manager

Spang-Chalfant Division of The National Supply Company announces the appointment of R. M. Burk as Manager of Sales—Seamless Products.

R. M. Burk

Upon his graduation from Cornell University in 1922, Mr. Burk entered the oil business in the employ of Waite Phillips Company, Tulsa, Oklahoma. In 1926 he joined The National Supply Company as Division Tubular Manager, Los Angeles, California, and later in succession became Manager of Sales, Spang-Chalfant, Los Angeles, and Manager of Sales, Spang-Chalfant, St. Louis. In 1940 he returned to Los Angeles as Assistant to the Vice President of The National Supply Company, which position he leaves for his new assignment.

Mr. Burk will assume his new duties September 1, 1943, with headquarters in the general office of Spang-Chalfant, Grant Building, Pittsburgh, Pennsylvania.

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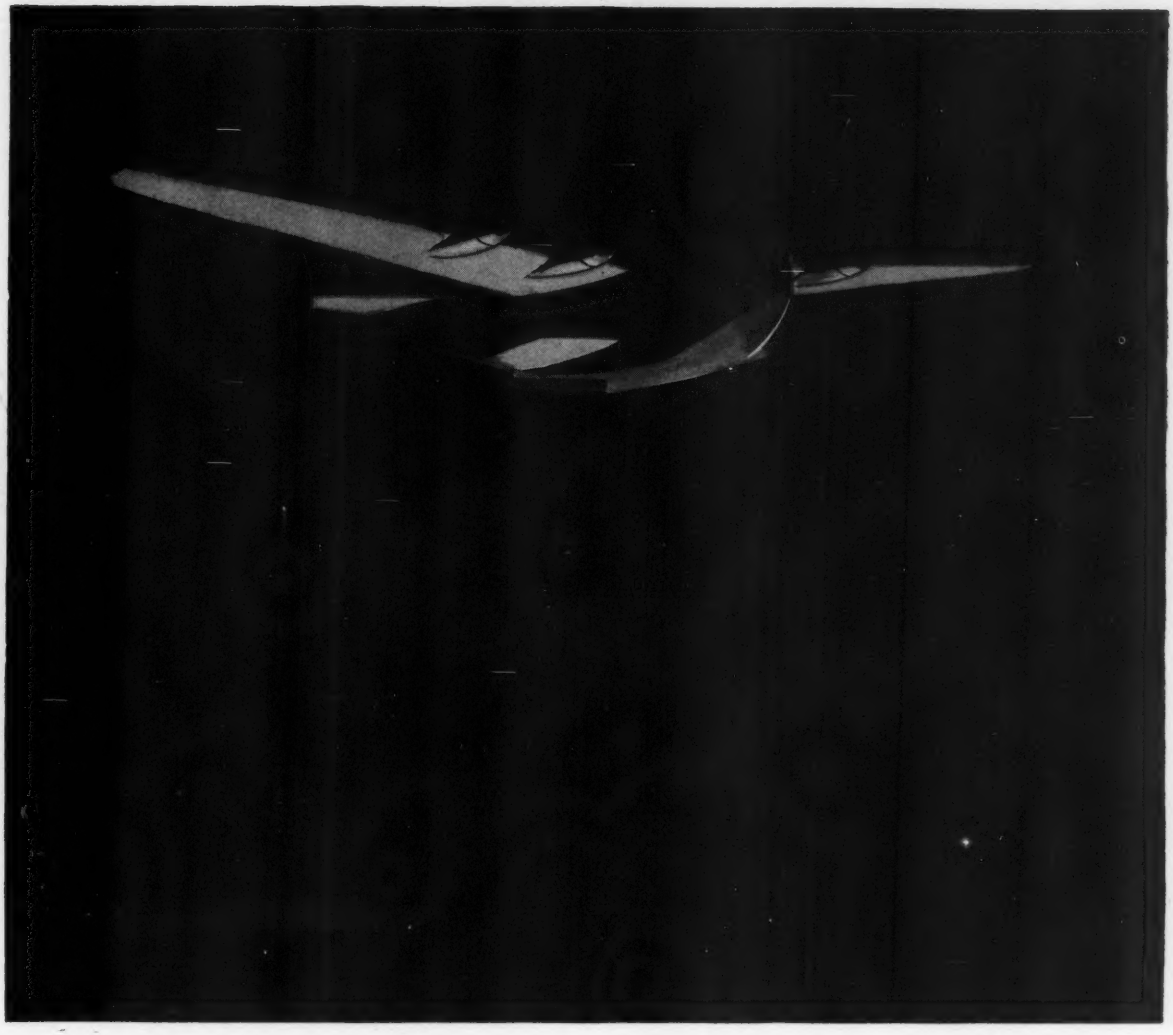
**BUY BONDS!**



# Clipper pilots have extra eyes

**To assist** in making night-time landings at the far-flung marine and land bases of Pan American World Airways, every Clipper captain has several "extra eyes"... radio, navigation, wing lights — and a piercing, dependable beacon light.

The big Diesel generators that pump power to these street lamps of the sky are the Clipper stations' nerve centers. They supply electricity for work shops, kitchens and living quarters — as well as illumination. They must be kept going at top efficiency night and day. To make sure they do, Pan American lubricates its Diesels with RPM DELO.

RPM DELO frequently doubles the time between Diesel overhauls. It ends ring-sticking, protects bearings against corrosion, cuts ring and liner wear to the thinnest minimum. No other lubricating oil gives your Diesels the protection they get from RPM DELO—because no other compounded oil combines its ring-cleaning, non-corrosive and anti-oxidant properties.

**STANDARD DIESEL FUEL** is 100% distilled—"vapor-cleaned" for long injector and fuel pump life. You get extra performance for your money—more complete combustion because of carefully controlled self-ignition values and other characteristics.

RPM DELO

GET EXTRA PERFORMANCE WITH STANDARD DIESEL FUEL

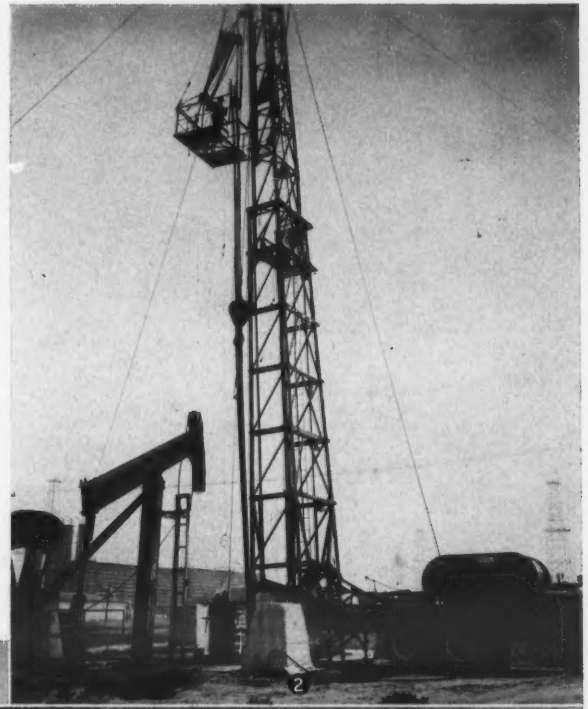
STANDARD OF CALIFORNIA

# *They get the* **OIL** *out of the Ground*

★

**These men help to maintain the flow of petroleum needed for war**

(*Captions on page* 18)



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12
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**THEY GET OIL OUT OF THE GROUND**

(Captions for pictures on pages 16-17)

1. This is really a picture of Co-operation with a big C. Ordinarily, when a well is pulled and turns out to be a "wet job," a cloth is wrapped around each joint as it is unscrewed, thus preventing the liquid from showering the entire county. A big hand to Robert Culp and Floyd M. Purdy, who wore slickers and took the full force of the shower, and to W. E. Conner and Clarence E. Chambers, who had to dodge as best they could. Incidentally, the photograph shows what a portable well pulling unit looks like with "gin pole" erected, working on Security No. 34, Mt. Poso field.

2. This is the most modern type of well pulling machine, with a tower which can be telescoped and folded back over the truck. It is pulling sucker rods at Reyes 66 in the Dominguez field, with Edgar D. Smith as derrickman. The rod hanger is seen above Smith.

3. Close-up of the wet job shown in No. 1. Floyd M. Purdy is at left, W. E. Conner in background.

4. Edgar D. Smith, "Compton Smitty" to his friends, is on the platform nearly 100 feet above the ground at Reyes 66, Dominguez field. guiding a stand (three joints) of sucker rods to the rod hanger where they are suspended while out of the well.

5. This is a bailing job. After having been down to the bottom of Matthew Fee 4, Mt. Poso field, the bailer has arrived at the surface with its load of sand and liquid. Lloyd L. Lathrop, left. stands ready with the wrench to open the valve at the bottom of the bailer. Clarence R. Boultinghouse is squeegeeing the oil from the side of the bailer with a rope to keep the location as dry as possible. Dean Trammel is at the controls of the truck engine which lowers and raises the bailer.

6. At Gosnell 11, Ventura field, George N. Mart, left, watches the traveling blocks raising the elevator, just going out of the picture. The elevator suspended on a hook is being raised so the derrickman can attach to it another stand of rods to be screwed to the rods held at the well head by a second elevator. Robert G. Smith, center, has the wrench ready and Clarence M. Hart, right, has just released the elevator.

7. Arthur W. Byers, 28 years with Shell without losing a day from sickness or accident, reads the new type of flow meter which measures the volume of oil produced by a well. These meters have replaced individual well tanks. Several wells are read at the same meter setting This one is Alamitos 6 station on Signal Hill.

8. This well pulling unit has been moved into position at Covarrubias 1-9 in Capitan field preparatory to pulling the well. Lewis (Mickey) McLean, veteran pumper, is at the left, Raymond B. Jones, well puller, at right.

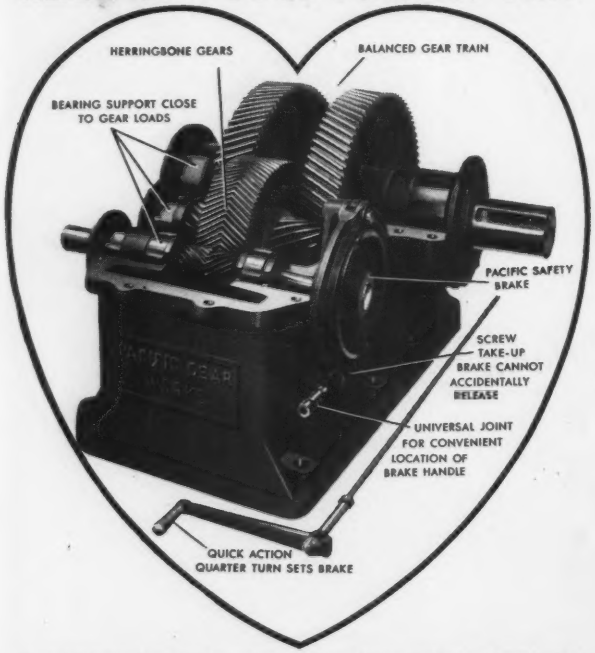
9. When a pumper is in his field office. he is in the "dog house." William Curtin, pumper on the Edison lease, Ventura field, joined Shell 27 years ago in Oilfields. He was a driller for 14 years and started work when cable tools were used.

10. William Curtin, making his rounds on the Edison lease, Ventura, checks a recording gas meter and replenishes the ink supply for the recording pens at a tank and trap farm.

11. Guy M. Hamilton lubricates an old type steam engine pumping Vedder 2, Mt. Poso field. This is the field's prize well, having produced 1,300,000 barrels since being placed on production in 1926. Normally, Mt. Poso wells have electric motors for pumping power, but this well, located near a permanent boiler plant, still has its original steam engine.

12. Delbert C. Hildreth checks on operation of an electrical dehydration unit in the Ventura field.


HEART OF A GOOD PUMPING UNIT


HERRINGBONE GEARS
BALANCED GEAR TRAIN
BEARING SUPPORT CLOSE TO GEAR LOADS
PACIFIC SAFETY BRAKE
SCREW TAKE-UP BRAKE CANNOT ACCIDENTALLY RELEASE
UNIVERSAL JOINT FOR CONVENIENT LOCATION OF BRAKE HANDLE
QUICK ACTION QUARTER TURN SETS BRAKE

A DEPENDABLE PACIFIC-WESTERN GEAR REDUCER

PACIFIC GEAR WORKS

DIVISION WESTERN GEAR WORKS

IMPERIAL & ALAMEDA BLVD. • LYNWOOD, CALIFORNIA

SPERRY-SUN

SPEED and ACCURACY

*always when you use*

SPERRY-SUN

Throughout the world, over a period of years, Sperry-Sun Well Surveying Instruments and Technical Services have been among the producers' greatest aids in assuring fast, accurate and profitable drilling. Literature upon request.

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|---|---|
| SURWEL Clinograph | H-K Single Shot |
| SYFO Clinograph | M-M-O Bottom Hole Orientation |
| E-C Inclinometer | K-K Whipstock |
| H-K Inclinometer | Polar Core Orientation |

SPERRY-SUN WELL SURVEYING CO.

PHILADELPHIA, PA.

HOUSTON, TEXAS — LONG BEACH, CALIF.

# Natural Gasoline and Recycling Plants

Corner of Plate Shop in our Manufacturing Plant, showing three of the six Absorbers for large gas pipe line Absorption Gasoline Plant handled on turn-key basis. Each Absorber 5' 6" I.D. x 57' 6" long x 1½" Plate.

**Complete Service and Responsibility within one organization . . . Engineering . . . Fabrication of all Processing Equipment in our own Shops . . . Field Construction.**

Our ability to handle all phases of projects speeds completion and assures efficient, economical installations.

- Distillate Recovery Plants
- Gas Dehydration Plants
- Compressor Stations
- Natural Gasoline Plants
- Stabilization Plants

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1625 SOUTH ALAMEDA STREET
LOS ANGELES CALIFORNIA

AFFILIATED WITH

**THE STEARNS-ROGER MANUFACTURING CO.**
1720 CALIFORNIA STREET • DENVER, COLO.

# THIS LAUGH

# OFF!!

### "Penalty One Stroke"

It doesn't take any bulky White Paper to establish the healthy morale of our British Ally. Evidence enough is a little list of emergency ground rules posted in all earnestness in the locker room of the Richmond Golf Club near London, as reported by Printers' Ink.

"1. Players are asked to collect bomb and shrapnel splinters to save these causing damage to the mowing machines.

"2. In competitions during gunfire or while bombs are falling, players may take cover without penalty for ceasing play.

"3. The positions of known delayed action bombs are marked by red flags at a reasonably, but not guaranteed, safe distance therefrom.

"4. Shrapnel and/or bomb splinters on the fairways, or in bunkers within a club's length of a ball, may be moved without a penalty, and no penalty shall be incurred if a ball is thereby caused to move accidentally.

"5. A ball moved by enemy action may be replaced, or if lost or destroyed, a ball may be dropped not nearer the hole without penalty.

"6. A ball lying in a crater may be lifted and dropped not nearer the hole, preserving the line to the hole, without penalty.

"7. A player whose stroke is affected by the simultaneous explosion of a bomb may play another ball from the same place. Penalty one stroke."

---

Our friend the bartender swears to the veracity of the visit of three men to his place of business.

"Coke," said the first.

"Orangeade," said the second.

"Water," said the third. "I'm driving."

---

The colored lady approached the teller's window at the bank and brought forth from each of her stockings a roll of bills, and from another part of her clothing another roll of bills. The surprised teller commented: "My goodness, Mandy, you must have been hoarding." "Partly," she said. "I got most of it doin' washings."

---

She wondered why they smiled when she said her husband never snored before they were married.

---

If every girl followed the straight and narrow, where would the brassiere manufacturers be?

---

Oddly enough, after a girl has played with fire a few years, she's anything but hot stuff.

---

The newlywed was asked how she liked married life. "Oh, there's not much difference," she replied, "Before we were married I used to wait up half the night for him to go. Now I wait half the night for him to come."

---

The Judge (sternly): "Well, what's your alibi for speeding sixty miles an hour through the residence section?"

The Victim: "I had just heard, your honor, that the ladies of our church were giving a rummage sale and I was hurrying home to save my other pair of pants."

The Judge: "Case dismissed."

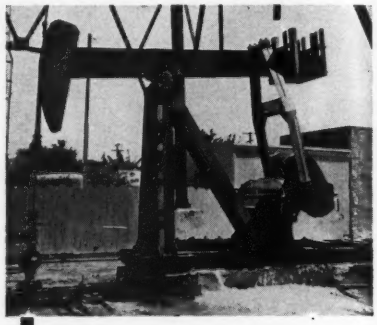
---

"The Irish aren't so tough."

"How come?"

"Me and my brother and two guys across the alley almost licked one last night!"

On the woman's page of the Washington Post the first sentence of a fashion story reads: "Right now, there are at least two good arguments in favor of a sheer blouse." We didn't bother to read any further.

**This 14-DC JENSEN Unit**

**Sixteen 48" S.P.M. 3,500' well. ¾" rods. 1¾" pump. Powered by a U-4 International gas engine.**

**Like all JENSEN installations this unit does a fine, dependable, money-saving job. For facts no California producer can afford to ignore, get in touch now with . . .**

**California Representative**
**A. V. TURNER**
**445 W. 6th**
**Downey, Calif.**
**Phone: Topaz 2-2410**

**Stocked by**
**THE OIL TOOL CORPORATION**
**3075 Cherry Avenue**
**Long Beach, Calif.**
**Phone 481-81**

**JENSEN**
**BROTHERS MFG. CO.**
**Coffeyville, Kansas, U.S.A.**

**EXPORT OFFICE: 50 Church St., New York City**

# Western Gear Receives First Army Guidon Award in the United States

## President Roosevelt's Daughter Makes Presentation

In an impressive open-air ceremony attended by high Army and Navy officers, prominent government officials, civic leaders, plant employees and their families, Western Gear of Seattle, on July 1, won the distinction of being the first plant in the United States to be authorized to fly the Auxiliary Military Police Guidon. The Guidon is a flag used by all Army units as an identification, but it can, upon specific recommendation of the commanding general in the area, be authorized to be flown as an honorary flag by an Auxiliary Military Police Unit. Among the distinguished guests attending or participating in the ceremony were: Brigadier General Eley P. Denson, Commanding General, Seattle Port of Embarkation; Colonel H. H. Galliett, Commanding Officer, Northern Security District; Colonel P. R. Mott, 778th Military Police Battalion, Boeing Field, Seattle; Colonel Thomas Thompson, Director of War Department Civilian Protection School, University of Washington, Seattle; Colonel Max G. Dice, Area Security Officer, Boeing Aircraft Company, Seattle; Colonel Wiley Wright, Army Air Force Resident Representative, Seattle; Major Daniel C. Imboden, Chief Plant Guard Officer, Northern Security District, Seattle; Major A. F. Kroeger, Northern Security District, Seattle; Captain Milton R. Fisher, Assistant to Chief Plant Guard Officer, Northern Security District, Seattle; Captain Jack Barrows, War Department Civilian Protection School, Seattle; Lieutenant Commander O. W. Fisher, Assistant Security Officer, Thirteenth Naval District, Seattle; Navy Captain L. J. Stecher, Inspector of Naval Materials, Thirteenth Naval District, Seattle; Captain Eric Barr, Naval R. O. T. C., University of Washington; Captain W. J. Malone, Supervisor of Shipbuilding, Seattle-Tacoma Shipbuilding Corp.; Commander T. L. Hannah (retired); the Honorable William F. Devin, Mayor of the City of Seattle.

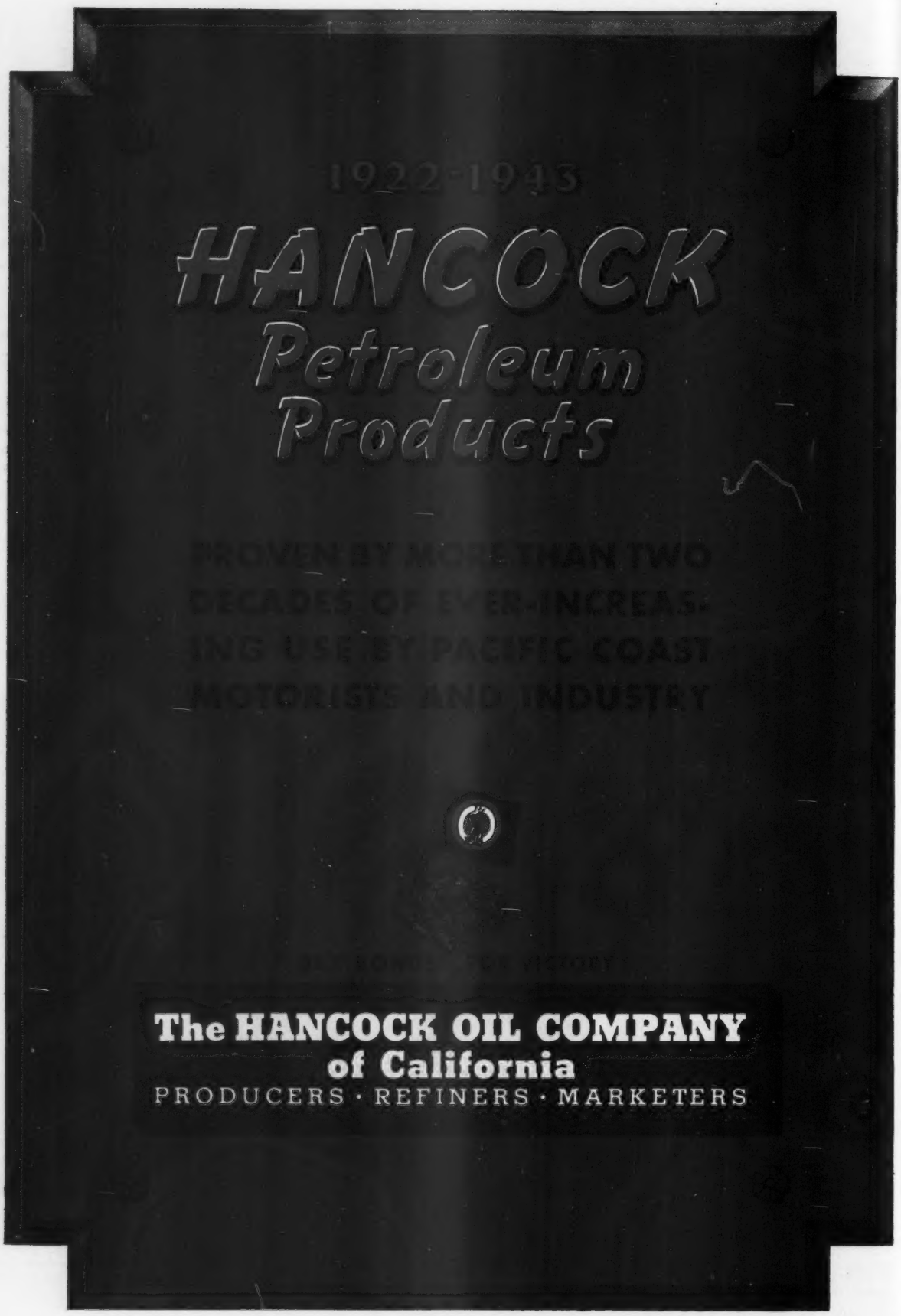
Auxiliary Military Police devote their entire time and attention to providing necessary protection of the facility they are employed to guard. They are charged by the War Department to "ward off danger or threat of danger of any kind and from any source."

In their basic training, the Western Gear Works Unit made an average grade of 91 per cent out of a possible 100 per cent. Topics covered comprised: duties and responsibilities of Auxiliary Military Police; law of arrest; sabotage and espionage; military law; articles of war; military courtesy; the school of soldier, squad, platoon; fire hazards and protection; personal encounters (Judo); defense against chemical attack; defense against paratrop attack; bombs and explosives; guard duty; weapons; emergency situations; marksmanship evacuation. This important course of instruction was conducted by the Northern Security District Police School in Seattle and was attended by the Western Gear Police on their own time.

The citation given by Major General Kenyon A. Joyce, Commandant of the Ninth Service Command, read in part: "For outstanding efficiency, training, and appearance, the Auxiliary Military Police Unit of Western Gear Works is authorized to display the Guidon."

In presenting the Guidon to Charles J. D'Hooghe, Captain of the Guard, Mrs. Anna Roosevelt Boettiger, daughter of President Roose-

IT'S THE FIRST IN THE U. S.! It was a big day for Captain Charles J. D'Hooghe and his Auxiliary Military Police Unit at Western Gear Works in Seattle when Mrs. Anna Roosevelt Boettiger, daughter of President Roosevelt, presented to their unit the first Army Guidon to be authorized by the Army. A large group of high Army and Navy officers, state, county, and city officials, and civic leaders attended the ceremony. Mrs. Boettiger and Captain D'Hooghe are pictures above displaying the Guidon.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velt, said, "It is easy to imagine how justly proud you men are today on being singled out as the first A.M.P. group to be awarded a Guidon. The right to display this Guidon is the highest honor which the A.M.P. Guard Force may attain."

Thos. J. Bannan, executive vice-president of Western Gear Works, said in his salute to the police, "We think, or at least we hope that as a department of the company they (the police) exemplify openly to the public and to the Army the quality of leadership, the kind of cooperation, the spirit, and the drive that each of us in our particular department is trying to develop."

In following their well established policy of employee relations which has built morale in the plant to an exceptionally high point, a program to arouse the enthusiasm of the employees and interest of the community was planned by Western Gear. Invitations to attend the ceremony were sent to the homes of all employees. Posters were placed on bulletin boards in the plant and office as a point-of-sale media to arouse interest in the ceremony. Half-page announcement advertisements were placed in local newspapers and contained such selling copy as "The qualifications—loyalty to duty, cooperation, friendly spirit, and the precise regard for rules and regulations which prompted their selection—we think exemplify the ideals that we all strive for at Western Gear Works."

The ceremony was broadcast by a leading local radio station and was rebroadcast at night for the convenience of those who were not able to hear the original ceremony.

Western Gear Works was awarded the Army-Navy "E" in February. It has two division plants in California—Western Gear Works at Lynwood and Pacific Gear Works at Vernon. It is associated with the Pacific Gear and Tool Works at San Francisco, who have also been awarded the Army-Navy "E".

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Oil Workers are War Workers.

## Frye Joins International Cementers

Following an association of five years with Richfield Oil Corporation, as research chemist, A. L. Frye has been appointed Manager of the Chemical Division of International Cementers, Inc., with headquarters at Long Beach.

A. L. Frye

Widely known throughout California, Mr. Frye is available for consultation on problems of acidizing and chemical treatment of both drilling and producing wells.

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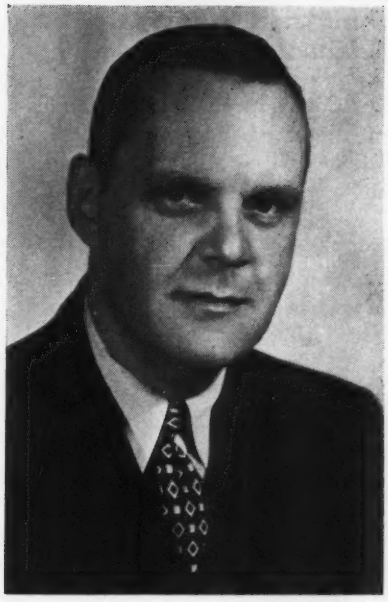
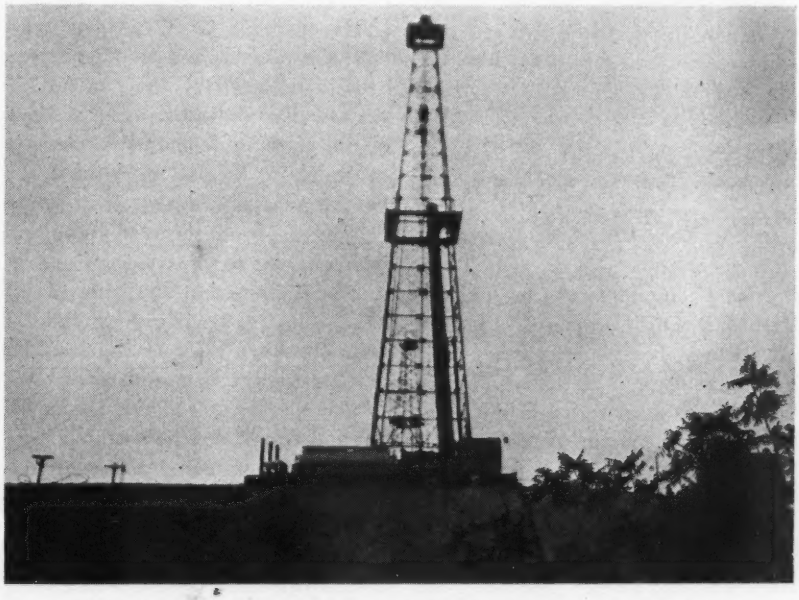
Apple juice substitutes for glycerine (needed for munitions) in moistening tobacco.



John H. Kunkel

Elected to Vice Presidency of National Industrial Advertisers Association, Inc., is John H. Kunkel, Director of Public Relations and Advertising at the Fluor Corporation, Ltd., Los Angeles, California. Kunkel is also a member of the Board of Directors of N.I.A.A. and President of the Los Angeles chapter, Industrial Advertising Association of Southern California. This is Kunkel's second term as head of the Los Angeles group.



Union Oil Co. drills them high on the Stearns Lease at Brea-Olinda.

## Dunn and Whaley Advanced by Barnsdall

E. B. Reeser, president, Barnsdall Oil Company since 1925, retired as of August 1, according to W. C. Whaley, vice-president of Barnsdall, and general manager of their California Division

"Mr. Reeser has been actively engaged in the petroleum industry for 50 years—40 years of this time has been spent with the Barnsdall interests," said Mr. Whaley. "Not only has he been active in the Barnsdall management, but he has held several positions of prominence in the industry. For three consecutive terms he served as President of the American Petroleum Institute."

Reeser was succeeded by James A. Dunn as the new President. Mr. Dunn is an old timer in the Barnsdall circles, having been associated

W. C. Whaley
(named Gen. Mgr., Calif. Division)

with them since the days of T. N. Barnsdall, founder of the present Barnsdall Oil Company. In 1926 Mr. Dunn became Secretary and Vice President of Barnsdall. Since then, he has been active in the management of the company, and is well known to the California branch of the industry.

"Mr. Dunn's varied experience, his aggressive leadership, and thorough understanding of not only his own company's problems, but of the entire industry as well, assures his success as President," Mr. Whaley says.

Of interest to California is the fact that at the recent meeting of the Board of Directors of the Barnsdall Oil Co., W. C. Whaley was appointed General Manager of the California Division. It is explained that this is in keeping with the Barnsdall policy of decentralizing their management. Mr. Whaley also retains his title as Vice President.

Dale R. Snow, also well known in the California oil industry, has been named Vice President and General Manager of the Mid-Continent Division.

According to Mr. Whaley, his company's new President will arrive in Los Angeles in the early part of August for his first official tour of inspection of Barnsdall's California holdings.

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## Merle M. Moore Advanced By Standard

Merle M. Moore, assistant superintendent of the lubricating division of Standard of California's Richmond Refinery, has been appointed superintendent of the company's Bakersfield Refinery, according to announcement on July 24th by C. E. Finney, Jr., General Manager of Standard's manufacturing department.

Moore took his new post August 1. He succeeds C. A. Swigart who has been functioning as superintendent of the refinery and general superintendent of the Central District of the pipeline department. Swigart continues in the latter position.

A long-time Standard of California employee, Moore received his thirty-year service pin last March. Born in Kansas, he came to California in 1913, shortly after his graduation from the University of Kansas. His first position with Standard of California was as a chemist in its El Segundo plant, and he was in charge of the El Segundo lubricating department for 18 years.

Moore came to the Richmond refinery in 1931, and has lived in Richmond since then. He and Mrs. Moore have a son, Robert, who is a member of the Coast Artillery, and a 17 year old daughter, Patricia, who will enter the University of California this fall.

L. B. Barlow, now general foreceeds Moore at the Richmond reman of the light oil department sucfinery.

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## Standard of Calif. Elects New Director

Paul Pigott of Seattle, President of the Pacific Car and Foundry Company and prominent in business and industry in the State of Washington, on July 29 was elected a director of the Standard Oil Company of California at a meeting of the Board of Directors in San Francisco.

War construction enterprises are at the present time engaging much of Mr. Pigott's attention — in addition to heading the Pacific Car and Foundry Company, of Renton, Washington, peace time manufacturers of railroad cars and buses and now producing General Sherman tanks, he is vice president of the Everett Pacific Company, constructors of sectional floating drydocks. Mr. Pigott is also president of the Seaboard Lumber Company.

He has long been active in the interests of Seattle's civic development and welfare projects and has served as a director upon the boards of various business and financial institutions. He was born in Seattle and is a graduate of Stanford University.

Mr. Pigott's election to the board of Standard of California is consistent with this company's administrative policy and also with the trend in corporate practice in recent times to bring to the directorate a few executives notably associated with diverse business interests. With this objective, the company last year elected Atholl McBean of San Francisco and A. N. Kemp of Los Angeles and New York, directors.

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The Western Hemisphere produces half the world's annual cotton crop, four-fifths of which is grown in the United States.

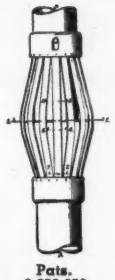
## McDonald Introduces New Face Shield

A new transparent face shield that may be attached to any protective hat has been introduced by B. F. McDonald Co., Los Angeles manufacturer of safety equipment. Known as the Any-Hat Face Shield, the device is available either in clear or in non-glare amber plastocele. Its two piece construction consists of a visor and a frame assembly.

The frame assembly clips on the brim of the safety hat, where it remains out of the way and scarcely visible. The visor snaps on this band by means of three snap fasteners whenever face or eye protection is desired and is easily removed when this feature is unnecessary. Already in use at leading shipyards, the face shield fits all McDonalds hats as well as other makes. A bulletin may be obtained by writing the B. F. McDonald Co., 1250E S. Hope St., Los Angeles 15, California.

C.N.G.A. meets regularly the first Thursday of each month at Rio Hondo Golf Club, 607 North Old River School Road, Downey. Dinner at 6 P.M., meeting at 7:30 P.M. Meetings open to all those interested.


**NEW**
**Cement Retaining**
**BASKET**



Pats. 2,258,052 2,220,237

New WEATHERFORD basket has leaves pre-formed (except at ends) like concave blade of a fine steel tape. Long spring leaves anchored to top and bottom collars. Half-length spring leaves anchored to bottom collar only. Bottom collar welds to casing. Top collar has slots which permit limited up-and-down movement on lugs welded to casing. Impossible for tool to telescope. Pre-formed leaves overlap snugly to form sludge-tight retainer when expanded against walls of hole. The final perfect answer to cement - retainer problems. Makes an exact science of stage cementing. Send for one or more prepaid, on approval. No obligation. Return collect if not wanted. Illustrated folder now ready—write for it.

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## Coast Friends Mourn Donald B. Collins

Donald B. Collins, who rose from roustabout in Long Beach to be Shell's Production Manager, Houston (Texas) area, died suddenly in Houston late in July, from a heart attack. He was 47 years old. His long service in California gave him many friends here who were shocked at his early death.

Donald B. Collins

Don Collins was born in Grass Valley, California, and was graduated from the University of California with the class of 1920. During the first World War, he served as sergeant in the engineers in France and Russia.

Joining Shell as roustabout in Long Beach on April 21, 1923, Don worked his way upward to rotary helper and then petroleum engineer. He was made assistant superintendent in the old Long Beach production division in 1929, superintendent at Brea the following year, and division superintendent in Oilfields division in 1932. He was appointed chief exploitation engineer in Los Angeles office in 1932 and was sent abroad to study production methods in other countries.

After his return to this country, Collins became division superintendent in Coastal production division in 1933, the post he held until his transfer to East of the Rockies Territory in 1934.

# Field Development

## Los Angeles Basin

### New Tideland Well Flowing

H. R. Hamilton, Operator, heading a syndicate of well known local oil men, completed the first of a series of Huntington Beach Tideland wells on a newly acquired State of California lease abutting the Southwest Exploration Co. holdings in this field. Located on the seaward side of 21st and Ocean Avenue the well, State No. 1, bottomed at 3276 ft. to complete flowing under wraps in a manner to confirm opinions that the Jones sand at this point is capable of production at rates from 1500 to 2500 bbls. daily. In this project 8⅝ in. casing including an unknown amount of perforation was landed in the zone on bottom and cemented through perforations at 2275 ft. While rocking over to complete the well flowed 150 bbls. in 50 minutes through the casing before switching over to a controlled tubing flow. At last report the well was making 198 bbls. of clean 19.4 gravity oil and an estimated 50,000 cu. ft. of gas through a 16/64 in. bean. The low gas volume coupled with relatively low flow pressure—as applied to the large oil volumes proved readily producible—is further confirmation of the fact that this prolific zone is water driven.

On the adjacent State of California Tideland lease Southwest Exploration Co. made up of Signal Oil & Gas and Hancock Oil Co., is completing its latest Jones sand well, State No. J-12. This company has, over a considerable time, developed the Main zone in this offshore acreage and only recently has undertaken Jones Sand exploitation. In spite of persistent effort on the part of field scouts, accurate knowledge of zones taken and production achieved is zealously withheld on these operations.

### Girard Planning Southern "Cat"

P. M. Girard has announced plans for a wildcat, Mark Fisher No. 1, near the Greenville settlement in Orange county. The well is staked some 2300 ft. north and 600 ft. east of Harbor Blvd. and Talbert Road in sec. 27-5s-10w, some four miles east of the Huntington Beach 5 Points area.

### Inglewood Deep Tests Drilling

Standard Oil Co.'s Baldwin Cienega No. 105, which is deepening in search of Sentous zone production in the easterly portion of the field, is coring ahead at 7295 ft. with last recovery being siltstone showing oil. On the Vickers lease the company's No. 1-36 is preparing to core from 8335 ft. after a test from the shoe of 7 in. casing at 8128 ft. to bottom recovered a full stem of clean oil with considerable gas.

In the most northwesterly portion of the field, near Jefferson Blvd. and Duquesne St., Federal Oil Co. is preparing to drill Federal-Smith No. 4 to the prolific Sentous zone, deepest producing horizon in this field.

**LOS ANGELES BASIN WILDCATS**

| Area | Well | No. | Section | Depth | Status |
|---|---|---|---|---|---|
| Aliso Canyon | Standard Oil Co., Frew | 1-1 | 29, 3-16 | 332 | Drilling |
| Del Valle | Standard Oil Co., N.L. & F. | 3-1 | 19, 4-17 | 2031 | Drilling |
| Las Llajas | Western Gulf Oil Co., Brady | 1 | 13, 3-17 | 9610 | Sidetracking |
| Montebello | Barnsdall Oil Co., Baldwin | 1 | 11, 2-11 | 2110 | Drilling |
| | Cont. Oil Co., Baldwin | 1 | 3, 2-11 | 5713 | Fishing |
| Newhall | P. M. Girard, Fisher-Wosk | 1 | 6, 3-16 | 3782 | Drilling |
| Norwalk | Gen. Pet. Corp., H. B. Allen | 1 | 12, 3-12 | | Prep. to spud |
| Puente | Barry Oil Co., Inc., Rowland | 1 | 14, 2-10 | 2423 | Bailing |
| | Hansen, Melvin, Dragna | 1 | 24, 2-10 | 3222 | Idle |
| | Horace Steele, Opr., Rowland | 1 | 17, 2-10 | | Rig |
| | J. C. Drilling Co., Kelso | 1 | 12, 2-10 | 2660 | Drilling |
| | McCartney, Chas. E., Hurley | 1 | 4, 2-10 | 2200 | Drilling |
| | V. & F. Oil Co., Grazide | 1 | 27, 2-10 | | Location |
| Rice Canyon | General Pet. Corp., Mendota | 1 | 22, 3-16 | 3266 | Drilling |
| Rosecrans | Union Oil Co., Amestoy | 1 | 18, 3-13 | 8083 | Abandoned |
| | Shell Oil Co., Inc., Bank | 1 | 18, 3-13 | 6915 | Completed |
| Temescal | The Texas Co., Dominguez | 57-1 | 1, 4-18 | 5913 | Drilling |
| Whittier-La Habra | H. & C. Oil Co., Joyce | 1 | 22, 2-11 | 5825 | Repairing |
| | Los Nietos Valley O. Co., Woodward | 1 | 29, 2-11 | 3583 | Idle |
| | **Orange County** | | | | |
| Greenville | P. M. Girard, Mark Fisher | 1 | 27, 5-10 | | Location |
| Newport Beach | Signal O. & G. Co., Willow Comm. | 1 | 19, 6-10 | 5006 | Abandoned |
| | **San Bernardino County** | | | | |
| Chino | Chino Hills Oil Co., Kraemer | 1 | 33, 3-28 | | Location |

## Whittier Hills Well Yet Drills

Standard Oil Co.'s Murphy-Whittier No. 62 was last reported drilling in brown sandy shale at 3410 ft. This test lies near the center of the old Whittier oil field on sec. 26-2s-11w and is the first drilled in the field for many years.

## Activity To Increase In Wilmington Field

While some 13 projects are currently under way in the Wilmington field this is thought to be a slow pace compared to the work expected soon to be started. Greatest boost to work levels will be produced by the extensive drilling programs currently outlined by Long Beach Oil Development Co., General Petroleum Corp., Union Pacific Railroad Co., O. M. Slosson and Continental Development Corp. These schedules will be augmented by many redrill programs under advisement and the manifold single grass root jobs already approved by P.A.W. The need for good quality crude with minimum steel expenditures is most readily effected here and the local operators are falling in with Federal requests that it be developed.

## Del Valle Try Put on Hook

Bankline Oil Co. Handy No. 104, at the north flank of the westerly field pool, abandoned at 5583 ft. after recovering only salt water and mud on formation trials. The company is moving yet further north in the same section 18-4n-17w to put down Sterry No. 101 as the most northerly try in the field area. Also in the westerly pool is Herley-Kelley's Orduno No. 1, last reported coring oil sand and shale at 5915 after topping the zone at 5885 ft.

On the adjacent section 17 Ohio Oil Co. Vasquez No. 6 is coring from 4782 ft. after a formation test of the interval 4742-4782 ft. blew an estimated 4,500,000 cu. ft. of gas. This company has rig up for No. 7 and is grading for No. 8 on this lease.

## Two Aliso Cyn. Wells Testing

Tide Water Assoc. Oil Co. has cemented casing and is testing water shut off on its two Aliso Canyon wells. In the field Porter No. 47 cemented 7 in. casing at 8050 ft. after coring good looking oil sand with a few streaks of siltstone from 8066 ft. to bottom at 8117 ft. Standard-Sesnon 1 No. 2, at the westerly flank, bottomed at 8594 ft. and with a tester packer at 8486 ft. flowed a 500 bbls. rate clean 21.6 gravity oil and an estimated 2000 to 5000 MCF gas rate before cementing casing at 8530 ft.

A mile southwest of the latter well Standard Oil Co. is drilling Frew No. 1-1 at 332 ft. near the south quarter corner of section 29-3n-16w. This well seeks extension of the Seson zone proved profilic on the west field flank by Tide Water's first Sesnon well.

## Rosecrans Outpost Proved Barren

Union Oil Co. Amestoy No. 1, an O'Dea zone try approximately a quarter of a mile southwest of 135th and Hoover streets at the westerly field fringe, abandoned in shale at 8083 ft. without tests.

Nearer production at the west edge of the field Shell Oil Co., Inc., Bank No. 1 completed at 6915 ft. pumping 125 bbls. of 32.2 gravity oil cutting 22.0 per cent. In the southwest field area St. Anthony Oil Corp. is redrilling its 8403 ft. Gordon No. 8 near 7600 ft.

## Basin Starts Deep Driller

Basin Oil Co. Potrero No. 14 on the Country Club lease in the Potrero field is under way and was last reported at 2550 ft. after cementing 11¾ in. surface casing at 1685 ft. This well is scheduled to be a deep test of the field.

## Redondo-Torrance Work On Upbeat

Activity in the Redondo sector of the Torrance oil field is gradually increasing. LeBow-McNee, which has been operating one string consistently for some time, has four additional projects immediately scheduled while completing Dominguez Estates No. 2-1 at 3696 ft. The company has consistently effected substantial completions with the last project initialing 125 bbls. per day and settling to a clean 90 bbls. per day pumped recovery. St. Francis Oil Co. and Dumm Bros. Pet. Corp. are each ready to start drilling programs, while Wood-Callahan and Royal Pet. are each working over old wells. Most easterly activity is the George D. Nordenholt well on the summit of the beach hills. This well bottomed at 3292 ft. in a zone which appeared promising on the log and is completing while the operator prepares for a second try some 330 ft. to the northeast of the initial well.

In the easterly field area The Texas Co. continues development of its Oakley lease and is preparing also to drill on the Redondo Improvement Co. acreage in the Redondo portion of the field.

## Oak Canyon Try To Test

Western Gulf Oil Co.'s Vesta B. Wickham No. 2, sec. 32-5n-17w, bottomed at a barren 7239 ft. and is standing plugged for an open hole test of the sand interval 6657-6685 ft.

## Materials in Natural Gasoline Plants

(Continued from Page 8)

loose leaf form, culled from various sources and arranged in convenient order for ready reference. Many of the items spoken about are described in more detail. If anyone has a question, perhaps this book may be of help, and I hope everyone will feel free to make use of it if he so desires.

With these comments for a starter, will someone from the floor please start off with some question, or tell us about some new experiences of his own?

# Coastal District

## Ventura Avenue Gets New Pool

Production not considered in original analysis of field reserves was credited to the Ventura Avenue field when General Pet. Corp. discovered substantial flowing production from the A-2 zone in Barnard No. 4A. The surprise results of remedial work on this hole, coupled with subsequent successful tests in the company's No. 26, since drilled to the zone only one location away, indicates that several new wells will be drilled and many more existing wells gun perforated to produce this heretofore disregarded horizon.

The unexpected flow was uncovered by a complex chain of circumstances. While running tubing in Barnard No. 4A, a pumper normally making 50 bbls. of 27.8 gravity oil from 4700 ft., the production crew noted a sudden vibration and gas, oil and mud flowed into the cellar and from the crater of abandoned No. 4, some 100 ft. removed. Estimates place the crater flow at 400 bbls. of water with some oil and gas while the active well flowed a similar amount of relatively clean oil between the 11¾ in. and 20 in. strings and the 8⅝ in. and 11¾ in. strings.

Suspecting that the flow came from below the shoe of the 8⅝ in. and that the 20 in. might have parted at the surface to let a part of the flow bypass, the operators set a retainer inside the 8⅝ in. at 3399 ft. to cut off the original producing zone and squeezed through three holes at 2500 ft. which cut off the flow between strings as well as from the crater.

With the 8⅝ in. gun perforated in the interval 3020-3025 ft., immediately below the 11¾ in. shoe, to relieve pressures—the well started flowing 450 bbls. of 33.7 gravity oil cutting 20 per cent and 850,000 cu. ft. of gas. Still not realizing the full import of the flow, the company waited the final exhaustion of what was thought to be a temporary yield. But contrary to expectation the well yet flowed after many weeks at a 208 bbl. net yield and is currently thought capable of much greater flow since it is tubed at only 250 ft.

The area yet to be developed is relatively small in extent, with the A-2 zone found between the log points "S" and "AC" in the "A" block. The open perforations for the current flow approximate the log points "V" plus 20 ft. to "V" plus 25 ft. but it is thought that in view of the formation tests in the subsequent No. 26 the production is coming uphole from the approximate interval 3200-3300 ft. In any event it once again demonstrates that in this, as in many California fields, isolated sands now behind pipe constitute a reservoir of potential unestimated reserves worthy of examination.

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## Happy Camp Well To Start

Calcamp Oil Corp. let the drilling contract for Harrington No. 1 approximately a quarter of a mile southwest of the north quarter corner of sec. 21-3n-19w. This well lies just south of the axis of the Happy Camp Anticline which for many years has been mapped by geologists of impeachable reputation. At the instigation of L. B. Lytle, president of the company, much recent geological work has been done in the area by equally reliable geologists who affirm that closure and justification exists for the modelo test now projected.

**COASTAL COUNTIES WILDCATS**

| Area | Well | No. | Section | Depth | Status |
|---|---|---|---|---|---|
| | **Santa Barbara County** | | | | |
| Casmalia | O.C. Field Gas. Corp., Arellanes | 1-F | 13, 9-35 | 1898 | Rig pump |
| | O. C. Field Gas Corp., Casmite | 2 | 13, 9-35 | | Prep. to spud |
| Gato Ridge | General Pet. Corp., Wickenden | 2 | 24, 8-32 | 5189 | Shut in |
| Lompoc | Alphonozo E. Bell Corp., Lompoc | 7 | 28, 8-34 | 4294 | Drilling |
| Los Olivos | Hub Oil Co., La Laguna | 1 | 7, 7-30 | 657 | Idle |
| Purisima Hills | Whittier Assoc., Barham | 1 | 11, 7-32 | 4256 | Drilling |
| Santa Rosa | The Texas Co., Petan Inv. | 1 | 20, 6-32 | | Grade |
| Tinaquaic | Union Oil Co., Sisquoc C. H. | 1 | 31, 9-31 | 2305 | Abandoned |
| | Union Oil Co., Sisquoc C. H. | 2 | 28, 9-31 | 1316 | Drilling |
| | **Ventura County** | | | | |
| Bardsdale | Camarillo Oil Co., Camarillo | 2 | 32, 2-20 | | Rig |
| Conejo | Allied Ppty, Inc., Camarillo | 2 | 4, 1-20 | | Location |
| | L. A. Basin Oil Co., Well | 1 | 4, 1-20 | 1746 | Idle |
| Eureka Canyon | El Rika Oil Co., Well | 4 | 33, 4-18 | 463 | Pumping water |
| | El Rika Oil Co., Well | 5 | 33, 4-18 | 60 | Drilling |
| Fillmore | Standard O. Co., Fillmore Comm. | 2-1 | 24, 4-20 | 4884 | Drilling |
| Piru | Continental Oil Co., Holser | 2 | 14, 4-18 | 7979 | Perforating and Testing |
| | Pac. West. O. Corp., Temescal | 14 | 4, 4-18 | 8821 | Drilling |
| | Standard Oil Co., Crestmont | 1 | 14, 4-18 | 5196 | Drilling |
| Rincon | Shell Oil Co., Inc., Tomson | 1 | 8, 3-24 | 9704 | Suspended |
| Sespe | Volunteer Pet. Co., Tar Creek | 3 | 28, 5-19 | 780 | Reaming |
| South Mt. | F. E. Fairfield, S. M. | 1 | 19, 3-20 | 3235 | Idle |
| Torrey Canyon | Union Oil Co., Torrey | 60 | 5, 3-18 | 4995 | Drilling |
| Wiley Canyon | Wilshire Oil Co., Ford | 1 | 1, 3-19 | | Grading roads |

**NORTHERN COUNTIES WILDCATS**

| County | Well | No. | Section | Depth | Status |
|---|---|---|---|---|---|
| Butte | Richfield Oil Corp., Chico | 1 | 17, 21n-1e | | Rigging up |
| Contra Costa | Cal-Bay Corp., Faria | 1 | 21, 2n-1w | 715 | Drilling |
| | Standard Oil Co., Keller | 1 | 26, 2n-1e | 2970 | Drilling |
| | Trico O. & G., Trico-Signal | 1 | 4, 2n-3e | 4350 | Abandoned |
| Glenn | Superior Oil Co., Knight | 1 | 13, 21n-2w | 4995 | Drilling |
| Monterey | Royalty Service Corp., Federal | 1 | 21, 24s-10e | 2200 | Drilling |
| Sacramento | Jergins Oil Co., McCormack | 1 | 30, 5n-5e | 5704 | Abandoned |
| San Joaquin | Amerada Pet. Corp., Comm. | 7-1 | 7, 4n-7e | 2900 | Abandoned |
| | Amerada Pet. Corp., Comm. | 15-1 | 15, 4n-7e | | Rigging up |
| | Amerada Pet. Corp., Comm. | 16-1 | 16, 4n-7e | 2700 | Completed |
| | Standard Oil Co., Holt Comm. | 1 | 15, 1n-5e | | Rigging up |
| Solano | Standard Oil Co., Honker Comm. | 1A | 25, 3n-1w | 6407 | Drilling |
| | Standard Oil Co., Fontana Farms | 1 | 23, 3n-1w | | Rigging up |
| | Standard Oil Co., Suisun Comm. | 3 | 5, 3n-1w | | Location |
| | The Texas Co., Stewart | 74-7 | 7, 4n-1e | 2230 | Drilling |
| Sutter | Shell Oil Co., Buttes Comm. | 1 | 2, 15n-1e | 6060 | Drilling |
| Tehama | The Texas Co., Walbridge | 1A | 32, 28n-2w | 3047 | Testing |
| Yolo | Shell Oil Co., Inc., Glide | 1 | 15, 7n-3e | | Rigging up |
| | The Texas Co., Winchester Six | 1 | 20, 7n-4e | | Location |

## Rio Vista Gasser In

Standard Oil Co. added another good producer to Northern California gas reserves when Midland Fee No. 5, sec. 4-3n-3e, completed in the interval 5035-43 ft. flowing through a 5/8 in. bean at a 13,337,000 cu. ft. rate under pressures of 1634/1604 lbs. and shut in pending demand.

## Amerada Working Lodi Area Play

Amerada Pet. Corp. is yet delineating the producing possibilities of the Lodi area in San Joaquin county where it has both hit and missed gas production. Currently working is Community No. 15-1 in the northwest corner of sec. 15-4n-7e as a follow up on Community No. 7-1 which proved barren at 2900 ft. on section 7 of the township.

"Who Was Who" is the title of a new book to be issued by "Who's Who in America." It is a condensed version of 22 previous editions.

## Prep. To Start Camarillo Well

Camarillo Oil Co. is moving in Butane equipment to spud Camarillo No. 1 on sec. 32-2n-20w of Ventura county. The rig is located 775 ft. north and 350 ft east of the southwest corner of lot 15 of Rancho Calleguas.

## Rincon Outpost Again Suspended

Shell Oil Co., Inc.'s Tomson No. 1, sec. 8-3n-24w north of the Rincon field, is suspended in Pico gray sand with a trace of tar at redrilled depth of 8670 ft. The rework was occasioned when the straight hole bottomed at a barren 9704 ft. and it was decided to redrill northwesterly from 5909 ft.

## Piru Well Yet Testing

Continental Oil Co.'s Holser No. 2, sec. 14-4n-18w, is plugging to perforate higher after a series of tests from 5520 to 6115 ft. recovered only mud with a trace of oil and gas. Bottomed at 8147 ft., the well has been tested in all possible intervals without having demonstrated commercial capacities.

## Nomads Wing Ding

(Continued from Page 12)

several of the dancing acts were greeted with much enthusiasm.

Plans and arrangements for the Wing Ding were made and carried out by the Wing Ding Committee consisting of:

Fred Tyler, Sergent-at-Arms and Chairman; Henry Pullman, president of Los Angeles Chapter, Ex-Officio; L. George Trembley, Asst. Chairman, in charge of Golf, assisted by Tom Martin; Ernie Fowks, Marshal; J. V. Robinson, in charge of games assisted by Tom Martin, Roger Henquet, Ray Humphreys, John Shea and Paul Hilton; E. R. Smith, prizes and finance, assisted by Jack Ballagh; W. A. Sawdon, in charge of floor show and offered assistance by everyone in the room.


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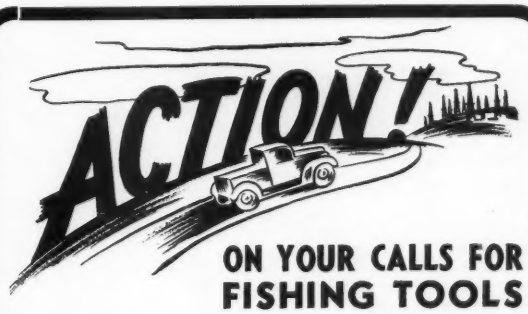


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YOU can shorten the time between a fish in the hole and a fish on the floor by giving Bowen a ring—**day or night.**

Bowen not only has the stocks of tools . . . the experienced service men . . . the delivery facilities . . . **but also has FIVE strategically located service stores throughout active California fields.** All these stores are open 24 hours a day for your convenience, ready with fast, accurate fishing tool service to **any** California well!

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CASPER, WYOMING

# San Joaquin Valley

## Seaboard Makes Fresno Co. Hit

Seaboard Oil Co.'s S. T. U. No. 53-14 on sec. 14-15s-17e of Fresno county is credited with a substantial discovery. Located a mile west of the north tip of the Raisin City field, the well came in flowing from the perforated interval 6290-6305 ft. with the initial yield being 434 B/D 24.6 gravity 0.4% 14/64 in. bean 840/900 # and 124,000 cu. ft. of gas. While the producing zone is similar to that in the field it is considered by competent authorities to be a separate accumulation rather than a field extension.

## Producer Added At Guijarral Hills

Standard Oil Co. completed another well in its discovery field south of the Coalinga Eocene Pool of Fresno county. Latest to the tanks in the Guijarral field was Pleasant Valley No. 28-21F flowing an initial 800 bbls. from the Eocene sands at plugged depth of 9175 ft. Settled production was 507 bbls. of clean 28.4 gravity oil and 272,000 cu. ft. of gas thru an 11/64 in. bean. Only other operator in the play is R. S. Lytle whose well No. 86-20F on sec. 20-20s-16e is coring oil sand at 8755 ft. after entering the pay at 8749 ft.

## New Kettleman Play Bldg. Rig

Some two and a half miles northwest of the northerly tip of the Kettleman North Dome field rig is going up for Standard Oil Co.'s Bourdieu No. 5-1H near the west quarter corner of sec. 1-21s-16e. The wildcat lies adjacent to the Polvadero Country Club property and is between the Kettleman field and the Guijarral Hills field, each of which produces from the Eocene age.

## Buttonwillow Well Abandoned

Predictions concerning the possibilities of the Buttonwillow-Bowerbank gas area were upset when The Texas Co.'s Bowerbank Unit 111-8-C bottomed in shale at 4927 ft. and abandoned without tests. Located on sec. 8-29s-24e the failure forces a reconsideration of the field geology.

## Grapevine Try Cores Ahead

Richfield Oil Corp.'s latest determined effort to find adequate saturation in the south valley is coring ahead from 5232 ft. The wildcat, Tejon No. 4, is located on sec. 34-11n-19w and has found only gray sand bodies to date. It is probable that the company will soon move to another location thought to be planned for section 35 of the township.

At the northern edge of the area Kern Line Oil Co. lost circulation on the redrill of its 8390 ft. well on section 19-11n-19w and is plugging with cement to resume from 8160 ft.

## McClung "Cat" Tests Stevens

Continental Oil Co.'s deep test of the central San Joaquin Valley is drilling ahead toward the Vedder after formation tests of meagre Stevens oil sands in the interval 7480-7513 ft. recovered oily gas cut mud before the shoulder failed. Located near the north line of sec. 4-30s-26e the well is in an area adjacent to other good valley fields which has been generally prospected in the past without results. The current well No. G-1 is reported to be followed by KCL No. H-1 on section 18 of the townshsip.

## Paloma Unit Plan Gets First Work

The Paloma Operators Committee, formed of personnel of the companies holding Paloma field acreage, is preparing to start Paloma Unit No. 54-33 near the center of sec. 33-31s-26e

**SAN JOAQUIN VALLEY WILDCATS**

| Area | Well | No. | Section | Depth | Status |
|---|---|---|---|---|---|
| | **Fresno County** | | | | |
| Curry Hills | Standard Oil Co., Camino | 2-1 | 31, 21-15 | 226 | Drilling |
| Huron | Gen. Pet. Corp., Burrel | 1 | 2, 17-18 | 9400 | Redrilling |
| Jacalitos | Standard Oil Co., Well | 67-17E | 17, 21-15 | | Rig |
| | Standard Oil Co., Wells Fargo | 1 | 30, 21-15 | | Location |
| Guijarral Hills | Standard Oil Co., P.V. | 28-21F | 21, 20-16 | 9255 | Completed |
| | R. S. Lytle, Well | 86-20F | 20, 20-16 | 8755 | Drilling |
| Polvadero | Standard Oil Co., Bourdieu | 5-1H | 1, 21-16 | | Bldg. rig |
| Raisin City | Seaboard Oil Corp., S.T.U. | 53-14 | 14, 15-17 | 6406 | Completed |
| | **Kern County** | | | | |
| Belridge—South | Berry Oil Co., Anderson | 1 | 36, 28-20 | | Location |
| Buttonwillow | The Texas Co., Bowerbank | 3-8C | 8, 29-24 | 4927 | Abandoned |
| Comanche Point | T. W. Burnham, Chiquita | 2 | 34, 12-19 | 1972 | Idle |
| Edison | Em H. Mettler & Sons, Mettler | 1 | 25, 30-29 | 1775 | Abandoned |
| | J. Paul Getty, Portals | 2 | 5, 30-29 | 2745 | Drilling |
| | Tracy Harkness Seale | 2 | 5, 30-29 | | Rig |
| Elk Hills | Pac. West'n & G.F. Getty, McNeil | 1 | 22, 30-24 | | Location |
| Fellows | C.C.M.O. Co., Well | 11-7 | 7, 32-23 | | Prep. to spud |
| Grapevine | Richfield Oil Corp., Tejon | 4 | 34, 11-19 | 5232 | Drilling |
| | Kern Line Oil Co., Well | 1 | 19, 11-19 | 8390 | Redrilling |
| Kern Front | Kern Front Drlg. Co., U. S. | 1 | 10, 28-27 | | Location |
| McClung | Continental Oil Co., KCL | G-1 | 4, 30-26 | 7536 | Drilling |
| McKittrick | Standard Oil Co., Well | 89-7 | 7, 30-22 | 4880 | Drilling |
| Mt. Poso | British American, U. S. | 2 | 34, 26-28 | 1343 | Completed |
| | Da-Me Oil Co., Well | 3 | 27, 26-28 | | Location |
| Paloma | Paloma Operator's Comm., No. | 54-33 | 33, 31-26 | | Grading |
| | Western Gulf O. Co., L. A. Club | 36-1 | 1, 32-26 | 11349 | Fishing drill pipe |
| Poso Creek | Pac. West'n O. Corp., Enas Fee | 27 | 21, 27-27 | 1264 | Drilling |
| Round Mt. | Harp & Brown, Olcese | 1 | 17, 28-29 | 1960 | Drilling |
| | Iseminger Bros., Recovery | 1 | 2, 28-28 | | Location |
| | Trico Oil & Gas, Ward | 1 | 30, 28-29 | 2865 | Abandoned |
| Shale Point | Shell Oil Co., Inc., Utting | 45-7 | 7, 27-19 | | Location |
| Strand—East | T.W.A. Oil Co., KCL | 54-8 | 8, 30-26 | | Rigging up |
| Temblor | B. F. Delanty, Well | 69-A-1 | 36, 29-20 | | Location |
| | **Kings County** | | | | |
| Hanford | The Texas Co., Souza | 14-33 | 33, 17-22 | 5776 | Abandoned |
| Pyramid Hills | Pac. O.&G. Dev. Corp., CC&MO | 1 | 17, 24-18 | | Drilling |
| | **Madera County** | | | | |
| Herminghaus | The Texas Co., Gill | 71-21 | 21, 13-16 | | Foundation |
| Firebaugh | The Texas Co., Moffat | 1-7 | 7, 12-15 | | Grading |
| | **Tulare County** | | | | |
| Porterville | T.W.A. Oil Co., Corehole | 54-34 | 34, 21-26 | 1259 | Drilling |

# BUDA POWER

**GAS--GASOLINE--**

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•

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25 years' experience in oil production. Capable of taking full charge of field and office management. Care of Calif. Oil World, Box 35.


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as the first job under the Unit control system. Since the first project is a northerly outpost it seems apparent that the committee's first effort will be to outline the maximum field limits to properly determine the necessary steps to develop this huge field on a sound engineering basis.

At the easterly field flank Western Gulf Oil Co.'s L. A. Club No. 36-1 is yet fishing drill collar and bit from 11,268 ft. Located on sec. 1-32s-26e the outpost is bottomed at 11,349 ft. after having taken enough black oil sand to indicate valuable production. At the present geological minds have not determined certainly whether this strike constitutes an extension to the field or is a new accumulation and consequent discovery.

## North Poso Creek Program Starts

Pacific Western Oil Corp. which effected Chanac production on its Enas Fee property on sec. 21-27s-27e is drilling No. 27 at 1264 ft. as the first of four similar projects on this acreage.

## Berry To Drill At So. Belridge

Berry Oil Co. is preparing to start a wildcat on the Anderson property, sec. 36-28s-20e a little more than a mile southwest of South Belrdige production.

Inside field drilling here continues with substantial shallow pumpers consistently resulting. Little decrease in current activity is foreseen with most operators having multiple projects laid out ahead of the drill.

## Drill Turning At Pyramid Hills

Pacific Oil & Gas Dev. Corp. is drilling C.C.&M.O. No. 1 on sec. 17-24s-18e in the Pyramid Hills area of Kings county. The company, which has three wells planned in this series, seeks duplication of the clean 15 plus gravity oil which it produces from the Kreyenhagen on section 20 of the township.

## Madera County Gets Two Starts

The Texas Co. is starting two projects in Madera county.


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**REMOVES SAND AND ABRASIVES FROM DRILLING FLUID**

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An effective and economical means of removing fine sand and abrasives from drilling mud. Reduces sand content to a minimum (often less than 1%). Increases drilling speed and efficiency, lengthens life of pumps, hose, swivels and bits. Handles output of largest pumps. Helps prevent expensive fishing jobs. Easily installed, compact, portable. Write for illustrated literature.

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# IF YOU'RE MAKING MORE MONEY

# ...WATCH OUT!

WE WANT TO WARN YOU, before you read this page, that you've got to use your head to understand it.

We also want to warn you that—if you don't bother to read it carefully enough to understand it—you may wake up after this war as poor as a church mouse.

• • •

This year Americans are going to make —minus taxes—125 billion dollars.

But this year, we civilians are not going to have 125 billion dollars' worth of goods to spend this on. We're only going to have 80 billion dollars' worth. The rest of our goods are being used to fight the war.

That leaves 45 billion dollars' worth of money burning in our jeans.

Well, we can do 2 things with this 45 billion dollars. One will make us all poor after the war. The other way will make us decently prosperous.

***This way the 45 billion dollars will make us poor***

If each of us should take his share of this 45 billion dollars (which averages approximately $330 per person) and hustle out to buy all he could with it—what would happen is what happens at an auction where every farmer there wants a horse that's up for sale.

If we tried to buy all we wanted, we would bid the prices of things up and up and up. Instead of paying $10 for a dress we're going to pay $15. Instead of $5 for a pair of shoes we're going to pay $8.

This bidding for scarce goods is going to raise prices faster than wages. Wages just won't keep up.

*So what will people do?*

U. S. workers will ask for more money. Since labor is scarce, a lot of them will get it. Then farmers and business men who

feel the pinch are going to ask more money for their goods.

And prices will go *still higher*. And the majority of us will be in that same old spot again—only worse.

This is what is known as Inflation.

Our government is doing a lot of things to keep prices down . . . rationing the scarcest goods, putting ceiling prices on things, stabilizing wages, increasing taxes.

But the government can't do the *whole job*. So let's see what *we* can do about it.

***This way the 45 billion dollars will make us prosperous***

If, instead of running out with our extra dough, and trying to bid on everything in sight, we buy only what we absolutely need, we will come out all right.

If, for instance, we put this money into (1) Taxes; (2) War Bonds; (3) Paying off old debts; (4) Life Insurance; and (5) The Bank, we don't bid up the prices of goods at all. And if besides doing this we (6) refuse to pay more than the ceiling prices; and (7) ask no more for what we have to sell—no more in wages, no more for goods—*prices stay where they are now.*

And we pile up a bank account. We have our family protected in case we die. We have War Bonds that'll make the down payment on a new house after the war, or help us retire some day. And we don't have taxes after the war that practically strangle us.

Maybe, doing this sounds as if it isn't fun. But being shot at up at the front isn't fun, either. You have a duty to those soldiers as well as to yourself. You *can't* let the money that's burning a hole in your pocket start setting the country on fire.

★ ★ ★

**This advertisement, prepared by the War Advertising Council, is contributed by this Magazine in co-operation with the Magazine Publishers of America.**

# KEEP PRICES DOWN!

*Use it up*
*Wear it out*
*Make it do*
*Or do without*